



Sugar and Sweeteners Outlook: September 2022

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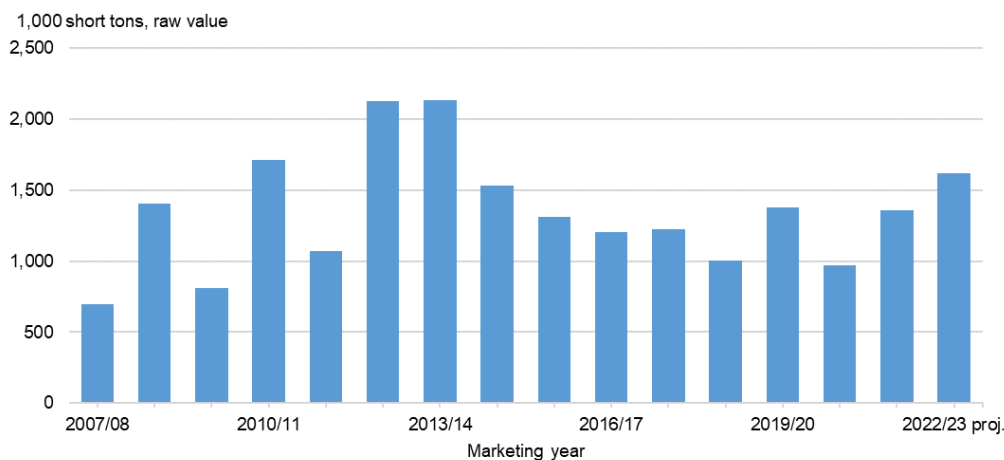
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Vidalina Abadam, coordinator

U.S. Sugar Supply Lowered in 2022/23, Mexico's 2022/23 Exports to the U.S. Reduced

The September 2022 *World Agricultural Supply and Demand Estimates (WASDE)* reduced the 2022/23 U.S. sugar supply on lower beginning stocks, production, and imports. Total sugar use in 2022/23 is unchanged. Per the terms of the U.S.-Mexico sugar suspension agreements, the level of imports from Mexico is set this month to residually arrive at a stocks-to-use ratio of 13.5 percent. As a result, sugar imports from Mexico are decreased by 115,405 short tons, raw value (STRV) to 1.641 million. There are no other changes from last month to either Mexico's 2021/22 or 2022/23 balance sheet in the *WASDE*.

Figure 1
U.S. imports of Mexican sugar, 2007/08 to 2022/23



proj. = projected.
Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates (WASDE)*.

U.S. Outlook Summary

Outlook for 2022/23 U.S. Sugar Supply Reduced

The September 2022 *World Agricultural Supply and Demand Estimates (WASDE)* reduced the 2022/23 U.S. sugar supply from last month by 104,000 STRV to 14.375 million STRV on lower beginning stocks, production, and imports (table 1). Use for 2022/23 is unchanged at 12.525 million. The lower 2022/23 beginning stocks stemmed from this month's update to 2021/22 balance sheet where the combined 124,000-STRV decrease between lower domestic production and imports is only partially offset by the 50,000-STRV reduction in sugar deliveries for food and beverage use. Sugar production in 2022/23 is lowered by 10,000 STRV to 9.141 million as the 8,000-STRV increase in the 2022/23 cane sugar production from last month is offset by the 18,000-STRV decrease in beet sugar production. Imports in 2022/23 are lowered by 20,000 STRV to 3.481 million as the increase in raw sugar tariff-rate quota imports is offset by lower imports from Mexico. Per the terms of the U.S.-Mexico sugar suspension agreements, the level of imports from Mexico is set this month to residually arrive at a stocks-to-use ratio of 13.5 percent.

Table 1: U.S. sugar: supply and use by fiscal year (October/September), September 2022

Items	2020/21		2021/22			2022/23		
		August (estimate)	September (estimate)	Monthly change	August (forecast)	September (forecast)	Monthly change	
	1,000 short tons raw value							
Beginning stocks	1,618	1,705	1,705	0	1,828	1,753	-74	
Total production	9,233	9,117	9,065	-51	9,151	9,141	-10	
Beet sugar	5,092	5,155	5,102	-53	5,138	5,119	-18	
Cane sugar	4,141	3,961	3,963	2	4,013	4,021	8	
Florida	2,090	1,933	1,933	0	2,000	1,968	-32	
Louisiana	1,918	1,906	1,906	0	1,910	1,950	40	
Texas	134	122	124	2	103	103	0	
Total imports	3,221	3,746	3,673	-73	3,501	3,481	-20	
Tariff-rate quota imports	1,749	1,766	1,648	-118	1,445	1,562	118	
Other program imports	292	300	300	0	250	250	0	
Non-program imports	1,180	1,680	1,725	45	1,806	1,669	-137	
Mexico	968	1,355	1,355	0	1,756	1,619	-137	
High-duty	212	325	370	45	50	50	0	
Total supply	14,072	14,568	14,443	-124	14,479	14,375	-104	
Total exports	49	35	35	0	35	35	0	
Miscellaneous	40	0	0	0	0	0	0	
Total deliveries	12,277	12,705	12,655	-50	12,630	12,630	0	
Domestic food and beverage use	12,161	12,600	12,550	-50	12,525	12,525	0	
To sugar-containing products re-export program	89	80	80	0	80	80	0	
For polyhydric alcohol, feed, other alcohol	27	25	25	0	25	25	0	
Commodity Credit Corporation (CCC) for ethanol	0	0	0	0	0	0	0	
Total use	12,367	12,740	12,690	-50	12,665	12,665	0	
Ending stocks	1,705	1,828	1,753	-74	1,814	1,710	-104	
Private	1,705	1,828	1,753	-74	1,814	1,710	-104	
Commodity Credit Corporation	0	0	0	0	0	0	0	
Stocks-to-use ratio (percent)	13.8	14.3	13.8	-0.5	14.3	13.5	-0.8	

Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates (WASDE)*.

Beet Sugar Production Reduced in 2021/22 and 2022/23

Beet sugar production in crop year 2022/23 (August 2022 to July 2023) is lowered by 19,000 STRV to 4.911 million STRV on lower sugarbeet production forecast (table 2). In its September 12 *Crop Production* report, the National Agricultural Statistics Service (NASS) updated last month's yield forecast. The reduction is mainly due to lower yields expected for all growing states, except for Minnesota, with the 2022/23 national forecast falling from 29.2 tons per acre in August to 29 tons in September (table 3). This reflects a 13-percent decline from last year's record high of 33.2 ton per acre and the lowest since 2014/15's 27.3 ton per acre. The lower yield outlook reflects the impact of the unfavorable spring conditions which delayed planting operations by up to 3 to 4 weeks—the latest in history for some areas. Timely planting is correlated with higher yields as it allows the plants to establish before the warmer summer months when key growth and development phases occur, and thus produce optimal-sized,

mature sugarbeets before harvest begins. However, it is of note that NASS' 29-ton-per-acre yield is higher than the prior WASDE projection of 27.9 tons per acre which was based on statistical analysis of yields since 2006/07. The higher-than-expected yield can be attributed to the favorable weather during the growing season and good crop management on the part of the growers.

Table 2: Beet sugar production calculations, 2019/20–2020/23

	2020/21	2021/22	2021/22	Monthly change	2022/23	2022/23	Monthly change
		August	September		August	September	
Sugarbeet production (1,000 short tons) 1/	33,610	36,751	36,751	-	33,486	33,351	(134.5)
Sugarbeet shrink (percent)	6.60	7.6	7.9	0.3	6.6	6.7	-
Sugarbeet sliced (1,000 short tons)	31,392	33,951	33,850	(100.7)	31,282	31,116	(166.6)
Sugar extraction rate from slice (percent)	15.34	14.6	14.587	(0.1)	14.6	14.6	-
Sugar from beets sliced (1,000 STRV) 2/	4,817	4,971	4,938	(33.4)	4,570	4,551	(19.5)
Sugar from molasses (1,000 STRV) 2/	362	360	340	(20.0)	360	360	-
Crop year sugar production (1,000 STRV) 2/	5,181	5,331	5,278	(53.4)	4,930	4,911	(19.5)
August–September sugar production (1,000 STRV)	765	676	676	-	500	500	-
August–September sugar production of subsequent crop (1,000 STRV)	676	500	500	-	678	678	-
Sugar from imported beets (1,000 STRV) 3/	N/A	N/A	N/A	N/A	30	30	-
Fiscal year sugar production (1,000 STRV)	5,092	5,155	5,102	(53.4)	5,138	5,119	(19.0)

STRV = short tons, raw value; NA = not applicable.

1/ USDA, National Agricultural Statistics Service.

2/ August–July.

3/ Sugar from imported beets in 2020/21 and 2021/22 are already included in the crop year production. Typically, this component is separated for projections and included in total once full crop year slice is available.

Source: USDA, Economic Research Service; USDA, World Agricultural Outlook Board; USDA, Farm Service Agency.

Table 3: Sugarbeet yields, 2018/19–2022/23

State	2017/18	2018/19	2019/20	2020/21	2021/22 est.	2022/23 proj.		Monthly change	Annual change
						August	September		
	Tons per acre								
	Percent								
Minnesota	30.6	25.7	25.0	26.1	31.0	25.4	25.8	0	-17
North Dakota	30.4	28.8	26.0	24.9	29.2	25.6	25.4	0	-13
Idaho	39.2	40.5	39.0	40.5	39.5	39.0	39.0	0	-1
Michigan	25.2	29.1	28.6	28.3	37.4	31.0	30.8	0	-18
Nebraska	31.8	31.9	25.4	31.0	31.9	30.6	25.7	-5	-19
Montana	32.7	31.1	31.6	31.3	29.8	30.0	30.0	0	1
Wyoming	28.2	30.8	28.3	29.6	29.5	29.4	27.3	-2	-8
Colorado	35.7	32.6	30.7	31.3	33.7	29.6	28.6	-1	-15
California	43.7	48.8	45.4	46.6	46.0	46.7	46.7	0	1
Oregon	36.7	39.4	38.5	40.9	37.9	38.5	38.1	0	1
Washington	48.3	48.3	45.5	47.9	45.8	46.0	45.5	-1	-1
U.S. total	31.7	30.4	29.2	29.4	33.2	29.2	29.0	0	-13

est. = estimated; proj. = projected.

Source: USDA, National Agricultural Statistics Service.

The national yield reduction offsets the 3,000-STRV increase in the 2022/23 sugarbeet area harvested, from 1.146 million acres last month to 1.149 million (table 4). This represents a 4-percent increase from the previous year's 1.108 million harvested acres and the largest since 2014/15. The higher harvested acreage reflects the efforts of producers, specifically in

Minnesota and North Dakota, to bring in additional areas to compensate for the expected low yields due to weather-delayed planting. Portions of these additional areas needed to be replanted due to strong winds, dust, and hail events during April through June.

Table 4: Sugarbeet harvested area, 2018/19–2022/23

State	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23 proj.		Monthly change	Annual change
					est.	August	September		
					1,000 acres				Percent
Minnesota	420.0	408.0	337.0	429.0	396.0	441.0	438.0	-3	11
North Dakota	214.0	199.0	170.0	218.0	222.0	235.0	249.0	14	12
Idaho	167.0	163.0	165.0	168.0	170.0	170.0	170.0	0	0
Michigan	144.0	148.0	145.0	154.0	142.0	137.0	137.0	0	-4
Nebraska	46.1	44.1	42.1	45.7	43.8	44.4	39.0	-5	-11
Montana	42.9	42.4	36.5	38.1	43.5	33.5	33.5	0	-23
Wyoming	32.1	30.7	24.0	30.6	30.6	29.0	27.6	-1	-10
Colorado	29.4	25.5	24.3	23.7	23.6	22.4	21.1	-1	-11
California	25.0	24.6	24.4	23.4	23.8	23.9	23.9	0	0
Oregon	9.1	9.3	9.8	9.4	10.4	7.9	8.0	0	-23
Washington	1.8	1.8	2.0	1.9	1.9	2.0	2.0	0	5
U.S. total	1,131.4	1,096.4	980.1	1,141.8	1,107.6	1,146.1	1,149.1	3	4

est. = estimated; proj. = projected.

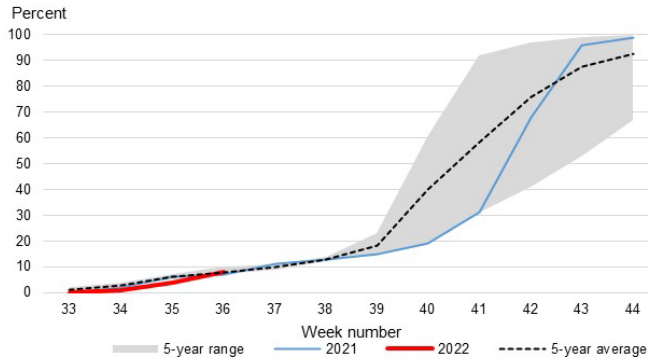
Source: USDA, National Agricultural Statistics Service.

The sugarbeet harvest has begun in some areas of the Red River Valley and Michigan but was pushed back until mid-September in other States. Based on NASS crop progress data, while harvest progress as of the week ending in September 11 has been on track with recent trends in North Dakota and Michigan, it has lagged in Minnesota and Idaho (figures 2, 3,4, and 5).

Pending the availability of actual production data, the 2022 early season sugar production is remains at 500,000 STRV (table 2). Subtracting this amount from the 4.911 million-STRV 2022/23 crop year sugar production, then adding the sugar production forecast from the 2023 early season and from imported beets—also unchanged at 665,000 STRV and 30,000 STRV, respectively—result in a fiscal year 2022/23 sugar production of 5.119 million.

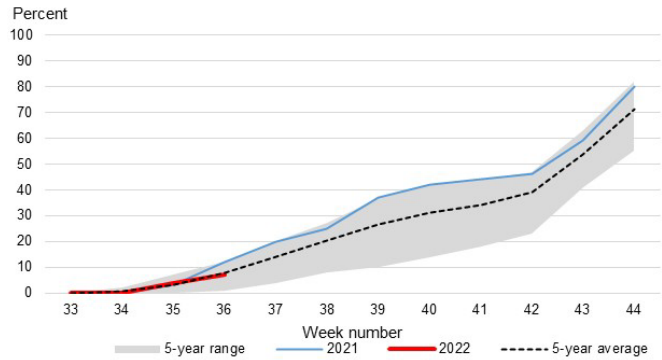
Beet sugar production in fiscal year 2021/22 is lowered 53,440 STRV to 5.102 million based on the availability of processors' full crop year data (August 2021 to July 2022) in the Sweetener Market Data (SMD) which showed a small reduction in sucrose recovery and amount of sugar produced from desugared molasses (table 2). The recovery is down by 0.1 percent to 14.587, which is below the 10-year average, while the sugar from molasses is reduced by 20,000 STRV to 340,000. The final 2021/22 production, however, can still change depending on the processors' early season sugar output in August-September 2022.

Figure 2
North Dakota sugarbeet harvest progress



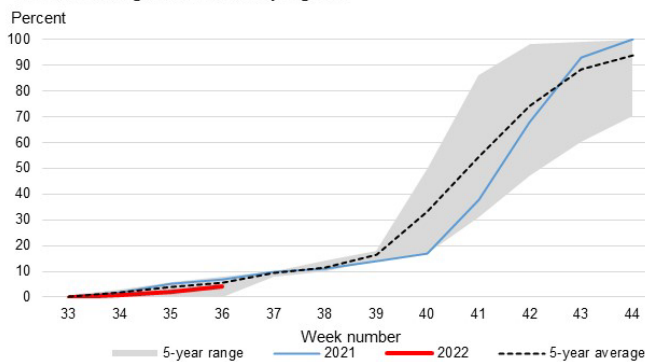
Source: USDA, National Agricultural Statistics Service.

Figure 3
Michigan sugarbeet harvest progress



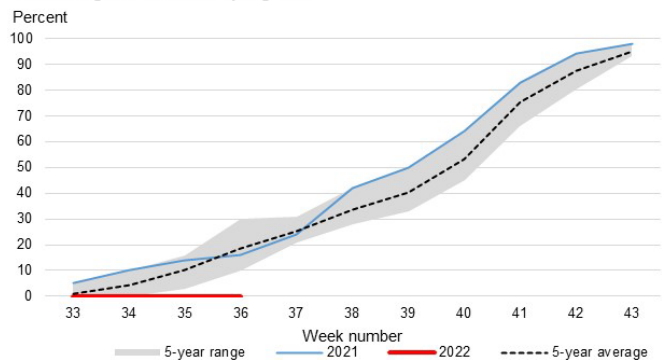
Source: USDA, National Agricultural Statistics Service.

Figure 4
Minnesota sugarbeet harvest progress



Source: USDA, National Agricultural Statistics Service.

Figure 5
Idaho sugarbeet harvest progress



Source: USDA, National Agricultural Statistics Service.

Cane Sugar Production Marginally Up in 2021/22 and 2022/23

Cane sugar production for 2021/22 is increased from last month by 2,000 STRV to 124,000, solely on the Texas cane processor's revision (table 5). For 2022/23, cane sugar production in 2022/23 is increased by 8,000 STRV from last month to 4.021 million as the reduction in Florida is offset by the increase in Louisiana; there are no changes for Texas' sugar production which remains at 103,000 STRV. This amount is 2.4-percent higher than last year and would be the third largest cane sugar production behind 2018/19 and 2020/21.

Florida's 2022/23 cane sugar production forecast is reduced 32,000 STRV to 1.968 million based on the processors' forecast published in the Farm Service Agency (FSA) *Sweetener Market Data (SMD)* report. Despite the reduction from last month's forecast, this would represent a 1.8-percent increase in sugar production compared with 2021/22.

Louisiana's 2022/23 sugar output is increased 40,000 STRV to 1.950 million STRV based on

NASS' higher forecast of sugarcane production in its September *Crop Production* report. The September report shows a 2,000-acre increase in the 2022/23 area for sugar and seed to 489,000 acres and a yield of 31.8 short tons per acre, up from last year's 29 tons and the August forecast's 31.3 tons. If realized, this would surpass the prior record high of 1.938 million STRV in 2018/19.

Table 5: U.S. sugarcane and cane sugar production, by State, 2017/18–2022/23

	2017/18	2018/19	2019/20	2020/21	2021/22 est.	2022/23 proj.
Florida						
Sugarcane harvested for sugar and seed (1,000 acres)	412.7	412.3	410.7	423.3	403.5	396.5
Sugarcane harvested for sugar (1,000 acres)	397.0	397.0	397.0	409.0	388.0	382.2
Sugarcane yield (short tons per acre)	40.9	41.7	42.8	44.3	42.4	44.0
Sugarcane production (1,000 short tons)	16,237	16,555	16,992	18,119	16,451	16,815
Recovery rate (percent)	12.2	12.1	12.4	11.5	11.7	11.7
Sugar production (1,000 STRV)	1,983	2,005	2,106	2,090	1,933	1,968
Louisiana						
Sugarcane harvested for sugar and seed (1,000 acres)	449.6	448.5	469.0	488.4	495.3	489.0
Sugarcane harvested for sugar (1,000 acres)	414.0	425.0	442.0	461.0	466.0	459.2
Sugarcane yield (short tons per acre)	32.5	35.3	27.7	32.9	29.0	31.8
Sugarcane production (1,000 short tons)	13,455	15,003	12,243	15,167	13,514	14,603
Recovery rate (percent)	13.84	12.71	12.73	13.02	13.86	13.35
Crop year sugar production (1,000 STRV) 1/	1,862	1,907	1,558	1,975	1,874	1,950
Fiscal year sugar production (1,000 STRV) 1/	1,859	1,938	1,566	1,918	1,906	1,950
Texas						
Sugarcane harvested for sugar and seed (1,000 acres)	41.8	38.9	33.5	35.9	36.4	32.3
Sugarcane harvested for sugar (1,000 acres)	40.5	37.6	31.3	33.4	34.3	30.6
Sugarcane yield (short tons per acre)	36.8	36.6	33.6	34.1	30.8	27.8
Sugarcane production (1,000 short tons)	1,490	1,376	1,052	1,139	1,056	852
Recovery rate (percent)	10.1	11.3	10.7	12.0	11.7	11.8
Sugar production (1,000 STRV)	169	147	126	134	124	103
United States						
Sugarcane harvested for sugar and seed (1,000 acres)	904.1	899.7	913.2	947.6	935.2	917.8
Sugarcane harvested for sugar (1,000 acres)	851.5	859.6	870.3	903.4	888.3	872.0
Sugarcane yield (short tons per acre)	36.6	38.3	34.8	38.1	34.9	37.0
Sugarcane production (1,000 short tons)	31,182	32,934	30,287	34,425	31,021	32,271
Recovery rate (percent)	12.9	12.3	12.5	12.2	12.7	12.5
Crop year sugar production (1,000 STRV)	4,014	4,060	3,790	4,198	3,931	4,021
Fiscal year sugar production (1,000 STRV)	4,011	4,091	3,798	4,141	3,963	4,021

STRV = short tons, raw value; est. = estimated; proj. = projected.

1/ Louisiana's harvest and processing of sugarcane begins typically in September, thus the crop year and fiscal year sugar production for this State tend to be slightly different. Fiscal year production is the final value used for official USDA estimates. For Florida and Texas, the crop year is the same as the fiscal year.

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

The sugarcane crop condition ratings for Louisiana—the only State for which this metric is available—provide support for the higher 2022/23 cane sugar production forecast. As of week 36, which ended on September 11, the good-to-excellent rating stands at 76 percent compared with 60 percent last year, and is the second highest at this same time since 2017/18 (table 6).

The rest of the ratings are 23 percent fair (versus 34 percent last year) and 1 percent poor/very poor (6 percent). Note that while the rating is a widely followed metric in the industry, it is not necessarily a significant variable in predicting the actual cane sugar production.

Table 6: Crop conditions in Louisiana through September 11, 2022 1/

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	5-year average
Excellent	17	12	11	13	8	15	12
Good	60	47	56	56	52	61	54
Fair	19	35	28	23	34	23	28
Poor	3	5	4	8	6	1	5
Very poor	1	1	1	0	0	0	1
Weighted condition index 2/	389	364	372	374	362	390	372

1/ Week 36; exact dates vary by year.

2/ This weighted condition index is generated by multiplying the percentage of crops in excellent condition by 5, percentage good by 4, fair by 3, poor by 2, and very poor by 1.

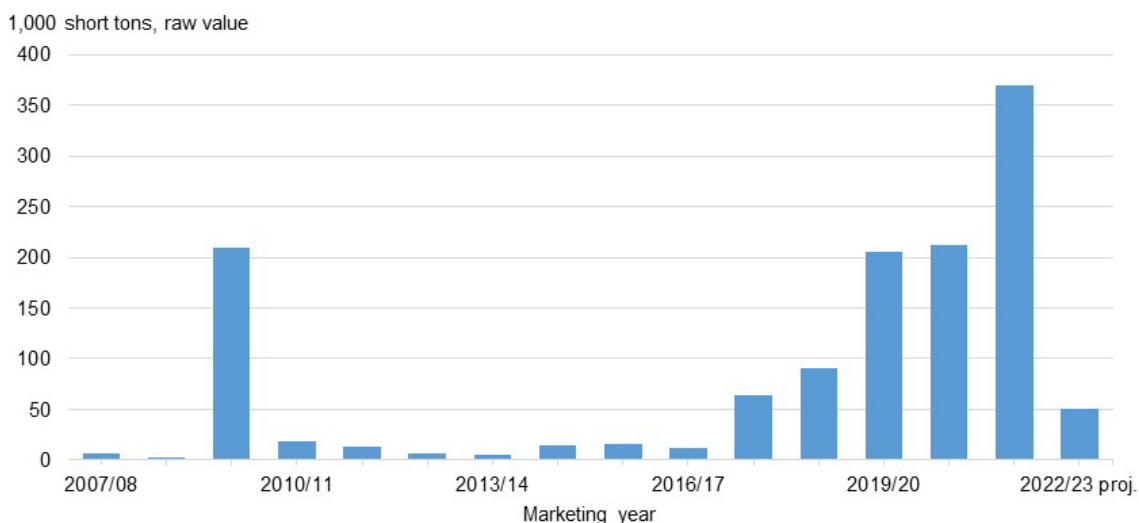
Source: USDA, Economic Research Service; USDA, National Agricultural Statistics Service.

Imports in 2021/22 and 2022/23 Lowered, USDA Extends Entry of 2021/22 Raw Sugar TRQ

Imports in 2021/22 are down 73,000 STRV from last month to 3.501 million as the lower estimate for raw sugar tariff-rate quota (TRQ) is only partially offset by the increase in high-tier sugar. The 2021/22 raw sugar TRQ is reduced 118,000 STRV because this amount is now expected to enter in fiscal year (FY) 2023. On September 8, USDA further extended the FY 2022 quota entry by 2 months through December 31, 2022. USDA initially extended the raw sugar quota period through October 31 on July 7—the same time it announced the 100,000-STRV increase in raw sugar TRQ.

High-tier imports in 2021/22 are raised 45,000 STRV to 370,000 based on analysis of trade data from the U.S. Department of Commerce, Bureau of the Census, which indicated that cane refiners have imported high-tier raw sugar in August (figure 6). This is the seventh consecutive month since the February 2022 *World Agricultural Supply and Demand Estimates (WASDE)* that the 2021/22 high-tier imports estimate is revised upwards. If realized, this would be a new record and will be 160,000-STRV or 76 percent larger than the previous high of 210,000 in 2009/10. Even with the upward revision, an estimated 96 percent of the estimated total high-tier imports has already been imported, compared with the 5-year average pace to date of 85 percent (table 7).

Figure 6
U.S. imports of high-tier tariff sugar, 2007/08 to 2022/23



proj. = projected.
 Sources: USDA, Foreign Agricultural Service; U.S. Department of Commerce, Bureau of the Census.

Table 7: U.S. sugar imports, October to August, 2016/17 to 2021/22

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22 estimated	5-year average
October to August	1,000 short tons, raw value						
Mexico	1,029	1,129	906	1,265	898	1,214	1,046
WTO raw sugar TRQ	1,075	1,180	1,106	1,252	1,176	1,041	1,158
WTO refined sugar TRQ	219	190	207	407	217	237	248
FTA sugar TRQ	194	186	171	253	221	217	205
Re-export program	357	299	386	387	281	269	342
High-duty sugar	11	46	84	159	162	354	92
Total	2,885	3,030	2,862	3,723	2,955	3,332	3,091
Share of fiscal year total	Percent						
Mexico	85	92	91	92	93	90	91
WTO raw sugar TRQ	91	93	97	85	91	89	91
WTO refined sugar TRQ	100	100	100	100	100	98	100
FTA sugar TRQ	92	92	90	92	94	93	92
Re-export program	85	92	88	90	96	90	90
High-duty sugar	88	72	92	87	87	96	85
Total	89	92	93	90	92	91	91

WTO = World Trade Organization; TRQ = tariff rate quota; FTA = free trade agreement.

Source: USDA, Foreign Agricultural Service.

Since these imports are required to pay the out-of-quota tariff (15.36 cents per pound for raw sugar and 16.21 cents per pound for refined sugar), traditionally, high-tier imports are composed of high-value refined sugar that are difficult to source domestically. USDA's analysis of trade data indicated that at least half of the total high-tier imports to date is

comprised of raw sugar brought in by cane refiners. Interestingly, it was also during the prior record-setting year of 2009/10 when raw sugar comprised a significant portion of the total high-tier sugar imports.

Imports in 2022/23 are reduced by 20,000 STRV from last month to 3.481 million as the 118,000-STRV increase in raw sugar TRQ from the 2021/22 quota extension mentioned above is countered by a 137,000-STRV decrease of imports from Mexico. The updated imports from Mexico—1,619 million STRV—is calculated based on the terms of the suspension agreements U.S. Needs calculation using 13.5-percent stocks-to-use ratio. Since USDA has announced the 2022/23 additional specialty sugar TRQ of 220,462 STRV (or 200,000 metric tons, raw value) on September 15—after the *WASDE* publication—it has not been factored into the calculation.

Sustained High U.S. Prices Incentivize High-Tier Imports

The significant amount of high-tier imports has entered against the backdrop of the sustained high sugar price environment in the U.S. Nominal price for refined beet sugar in the spot market remains at 70 cents per pound—26 to 31 cents more than the same time last year. With their well-sold position, beet processors have yet to re-enter the 2022/23 market even after harvest campaign has started. Cane refiners, who are also reportedly well sold according to Sosland's *Sweetener Report*, are offering refined cane sugar at 68 cents per pound through December 31—about 18 cents more than last year's prices—and between 57 to 59 cents per pound for calendar year 2023.

High-tier refined sugar imports become economical when the margin between U.S. refined sugar prices and the world No. 5 refined sugar is larger than 26.1 cents per pound, which is a point estimate derived by adding a 6.1-cent per pound logistics cost (USDA internal calculation to make it equivalent to Northeast price FOB¹) to the 16.21-cent-duty for out-of-quota tariff. The margin between October 2021 to August 2022 averaged 33.7 cents per pound and is about 41.8 cents per pound through December using the No. 5 futures as of

¹ The refined beet and cane sugar prices published by the *Sosland Sweetener Market Report* are on a freight on board (FOB) origin, which means that on top of the sugar price, the buyer of sugar pays for the logistics costs from the shipping location (e.g., beet processing plant or cane refinery) to the destination (e.g., food and beverage manufacturing plant).

September 13. At these margins, high-tier sugar imports continue to be attractive.

Similarly, high-tier raw sugar imports are incentivized when the margin between the U.S. No. 16 raw cane sugar and world No. 11 is at least 18.6 cents per pound (3.2 cents for logistics cost from USDA internal calculations to make it equivalent to No. 16 CIF² plus 15.36 cent-duty for out-of-quota tariff). The average margin to date and through December (17.2 cents per pound) is lower than this threshold; however, cane refiners have been importing high-duty raw sugar throughout the year, contributing to the record-high 2021/22 estimate for high-tier imports (370,000 STRV). One explanation is that in the current inflationary environment and logistical bottlenecks, refiners are incentivized to secure raw supplies to maintain refining capacity and fulfill customers' orders. It can also imply that the actual logistic costs of bringing in this sugar may be lower than thought, perhaps due to efficiencies gained over the sustained period of high-tier imports, which started increasing since 2017/18. It can also be the case that the historically high U.S. refined sugar prices have led to wide cane refiner margins—the difference between refined and raw cane prices—allowing the acquisition of high-tier raw sugar imports to be worthwhile since the refiner can recoup the raw sugar input costs.

Deliveries Lowered in 2021/22 and 2022/23

Sugar deliveries for food and beverage use in 2021/22 are reduced 50,000 STRV from last month to 12.550 million on lower-than-expected pace of non-reporter deliveries (table 8). The 2022/23 food and beverage use forecast is unchanged at 12.525 million STRV.

The 2021/22 food and beverage deliveries through July amount to 10.359 million STRV, overtaking 2020/21's 10.121 million by about 238,000 STRV (or 2.4 percent) over the same period. With the 50,000-STRV downward revision to the 2021/22 estimate, the cumulative deliveries represent 82.5 percent of 12.550 million STRV, and thus are in line with the 10-year average's 82.5 percent (table 9).

² The No. 16 U.S. raw cane sugar futures are based on cost, insurance, and freight (CIF), which means that the price contract includes the logistics costs of delivering sugar to the U.S. refineries in New York, Baltimore, Galveston, New Orleans, and Savannah.

Table 8: Food and beverage deliveries, October–July, 2016/17–2021/22

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Annual change	
	1,000 short tons, raw value (STRV)						1,000 STRV	Percent
Beet sugar processors	4,410	4,364	4,173	3,662	4,079	4,432	353	8.7
Cane sugar refiners	4,995	5,032	5,203	5,450	5,197	5,248	51	1.0
Total reporters	9,405	9,397	9,376	9,112	9,276	9,681	404	4.4
Non-reporter (direct consumption)	608	591	633	941	845	679	-166	-19.6
Total (Oct. 2021 to Jul. 2022)	10,012	9,988	10,008	10,053	10,121	10,359	238	2.4
Final fiscal year deliveries	12,102	12,048	12,106	12,250	12,161	12,550	389	3.2
Aug to Sep. 2022 deliveries 1/	2,090	2,061	2,097	2,197	2,040	2,191	150	7.4

1/ For 2021/22, final fiscal year deliveries is a forecast, and September deliveries is the residual to reach the forecast total.

Source: USDA, Farm Service Agency.

Table 9: Pace of U.S. food and beverage deliveries, Oct.–Aug., 2010/11–2021/22

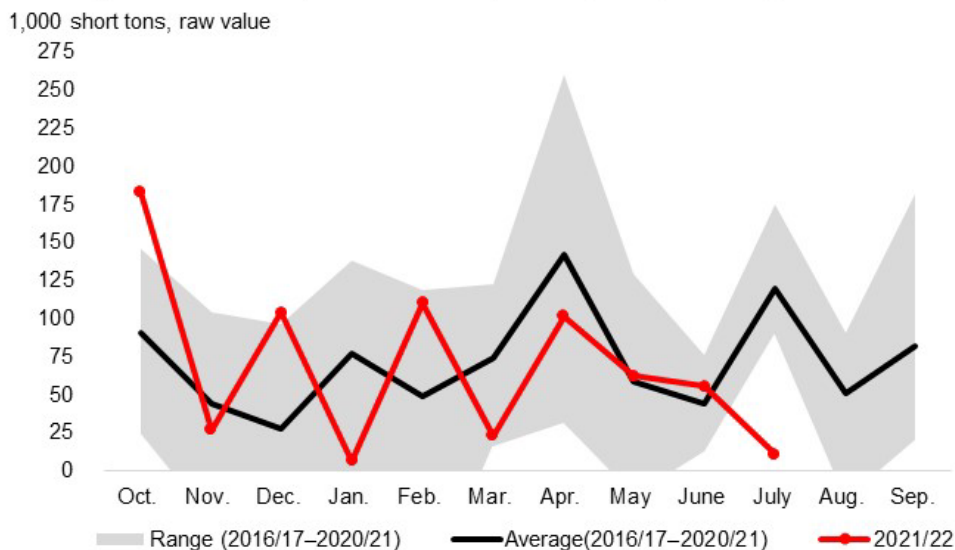
	Oct.–Aug.	Fiscal year total	Percent of total
	1,000 short tons, raw value		
2010/11	9,110	11,193	81.4
2011/12	9,157	11,141	82.2
2012/13	9,470	11,511	82.3
2013/14	9,716	11,786	82.4
2014/15	9,821	11,921	82.4
2015/16	9,759	11,881	82.1
2016/20	10,012	12,102	82.7
2017/18	9,988	12,048	82.9
2018/19	10,008	12,106	82.7
2019/20	10,053	12,250	82.1
2020/21	10,121	12,135	83.4
2021/22 estimate	10,359	12,550	82.5
10-year average	9,811	11,888	82.5

Source: USDA, Farm Service Agency.

While the 2021/22 non-reporter deliveries have been relatively strong between October to May, the pace has slowed in June and July so much so that the 679,000-STRV cumulative deliveries through July is about 166,000-STRV lower (or 20 percent) than last year over the same period (table 8). Particularly, the non-reporter deliveries in July are below the minimum during the last five years (figure 7). However, one caveat to consider is that the non-reporter deliveries—sugar distributed by companies other than the beet processors and cane refiners that report to the *Sweetener Market Data (SMD)*— is inherently unpredictable. Each month, this value is computed by subtracting the cane refiner imports reported on the USDA, FSA's *Sweetener Market Data* report from the total U.S. imports reported in the USDA, FAS' *Sugar Monthly Import and Re-Export Data* report. The FAS data, in turn, comes from two agencies, the U.S. Department of Commerce, Bureau of the Census, and the U.S. Customs and Border Protection. The difference in the timing of when the import was recorded by the different government agencies tends to introduce volatility to these numbers each month. In addition, due to the

residual nature of its calculation, the data can be subject to change if, for instance, the FAS or FSA revised the data.

Figure 7
Non-reporter deliveries (direct consumption imports), monthly, 2016/17 to 2021/22

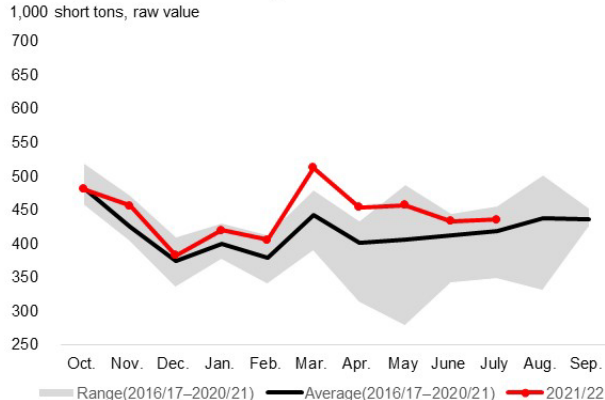


Source: USDA, Farm Service Agency.

Beet sugar deliveries continue to be the main driver of 2021/22 total deliveries, with monthly deliveries mostly larger than either the average or the prior record high in the last 5 years for that month (figure 8). As a result, the cumulative deliveries through July—4.432 million STRV—is about 353,000-STRV more (or 8.7 percent) than the same period last year, surpassing the prior record high of 4.410 million in 2016/17 (table 8).

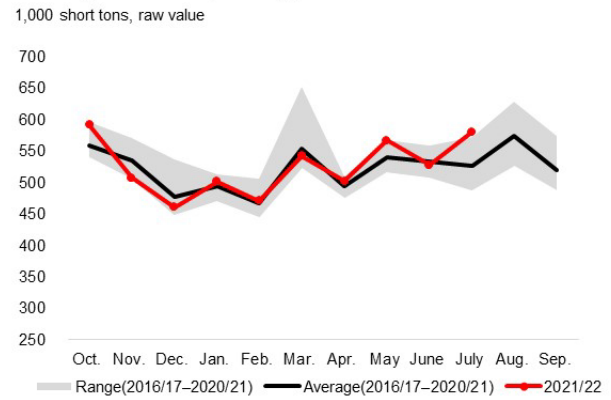
Cane sugar deliveries in July—580,000 STRV—were particularly strong (figure 9); it topped the previous record seen in July 2020. This was supported by a similar uptick in cane refiners' melt in July, which also posted a new record for this month (figure 10). However, with monthly deliveries mostly either lower or near the 5-year average, the 2021/22 cumulative deliveries at 5.248 million STRV are at par with 2018/19 and 2020/21, and behind 2019/20 over the same October-July period (table 8).

Figure 8
Beet sugar deliveries, monthly, 2016/17 to 2021/22



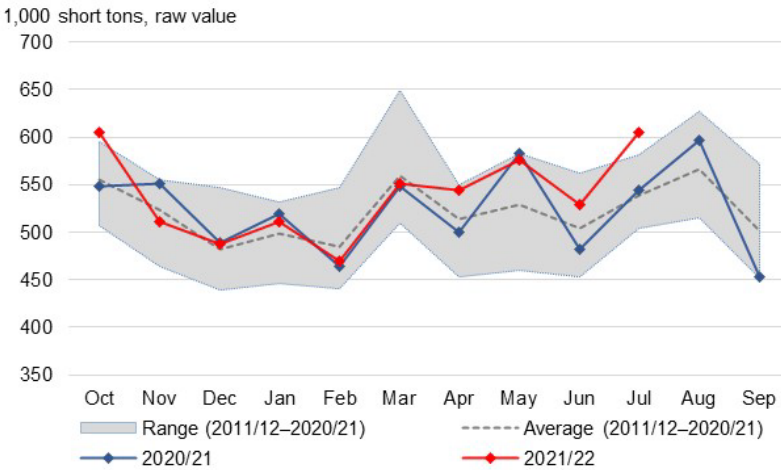
Source: USDA, Farm Service Agency.

Figure 9
Cane sugar deliveries, monthly, 2016/17 to 2021/22



Source: USDA, Farm Service Agency.

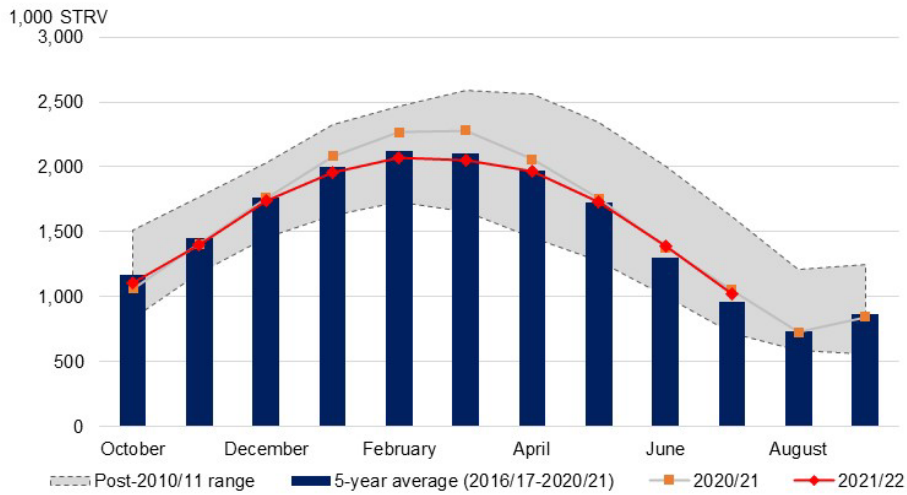
Figure 10
Sugarcane refiners' melt, monthly, 2011/12 to 2021/22



Note: Melt = quantity of raw sugar processed.
 Source: USDA, Farm Service Agency.

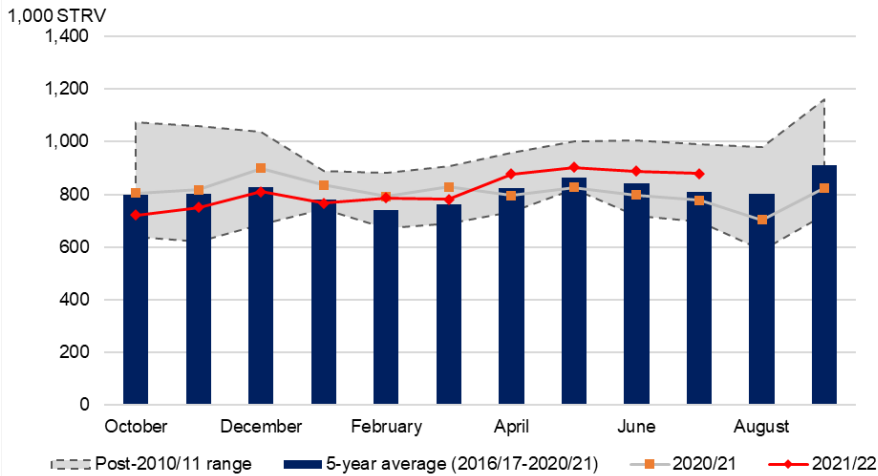
Despite the relatively strong pace of sugar deliveries from the domestic reporters, both stock levels of raw and refined sugar (figures 11 and 12) are within reasonable range. Refined beet sugar stocks as of July 31 are 1.018 million STRV, 3 percent less than last year but 6 percent more than the 5-year average (figure 11). After being at relatively low levels, cane refiners' raw and refined cane sugar inventory amounting to 879,000 STRV are now at average levels.

Figure 11
Sugarbeet processors' total sugar inventories, monthly, 2015/16 to 2021/22



Note: STRV = short tons, raw value.
 Source: USDA, Farm Service Agency.

Figure 12
Sugarcane refiners' total sugar inventories (raw and refined), monthly, 2015/16 to 2021/22



Note: STRV = short tons, raw value.
 Source: USDA, Farm Service Agency.

Mexico Outlook

Exports to the U.S. Lowered for 2022/23

The September 2022 *World Agricultural Supply and Demand Estimates (WASDE)* report made no changes to Mexico's sugar supply and use for either 2021/22 or 2022/23 (table 10). Mexican sugar production in 2021/22 is unchanged at 6.185 million metric tons (MT) based on the July 30 (week 44) production progress report by Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA) across 41 mills. CONADESUCA usually releases a final production report but has not done so as of publication. The Committee also has not released its initial forecast of production variables for 2022/23. While the 2022/23 Mexican exports to the United States is reduced by 118,000 MT to 1.385 million because of the U.S. Needs recalculation in September, total exports for 2022/23 are unchanged at 1.503 million. This reduction in U.S.-bound exports implies that a residual amounting to 99,000 MT is forecast to be destined for other countries. Ending stocks for both 2021/22 and 2021/22 stay at 947,000 MT, which is about the 2.5-months' worth of domestic consumption that Mexican officials target in their sugar program management.

Table 11: Mexican sugar: supply and use by fiscal year (October/September), September 2022

Items	2020/21			2021/22			2022/23		
		August (estimate)	September (estimate)	Monthly change	August (forecast)	September (forecast)	Monthly change		
1,000 metric tons, actual weight									
Beginning stocks	858	1,053	1,053	0	947	947	0		
Production	5,715	6,185	6,185	0	6,000	6,000	0		
Imports	65	50	50	0	50	50	0		
Imports for consumption	32	15	15	0	15	15	0		
Imports for sugar-containing product exports, IMMEX 1/	33	35	35	0	35	35	0		
Total supply	6,638	7,288	7,288	0	6,997	6,997	0		
Disappearance									
Human consumption	3,935	4,050	4,050	0	4,050	4,050	0		
For sugar-containing product exports (IMMEX)	485	497	497	0	497	497	0		
Other deliveries and end-of-year statistical adjustment									
Total	4,420	4,547	4,547	0	4,547	4,547	0		
Exports	1,165	1,794	1,794	0	1,503	1,503	0		
Exports to the United States and Puerto Rico	828	1,160	1,160	0	1,503	1,385	-118		
Exports to other countries	337	634	634	0	0	118	118		
Total use	5,585	6,341	6,341	0	6,050	6,050	0		
Ending stocks	1,053	947	947	0	947	947	0		
Stocks-to-human consumption (percent)	26.8	23.4	23.4	0	23.4	23.4	0		
Stocks-to-use (percent)	18.9	14.9	14.9	0	15.7	15.7	0		
High-fructose corn syrup (HFCS) consumption (dry weight)	1,320	1,310	1,310	0	1,317	1,317	0		

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

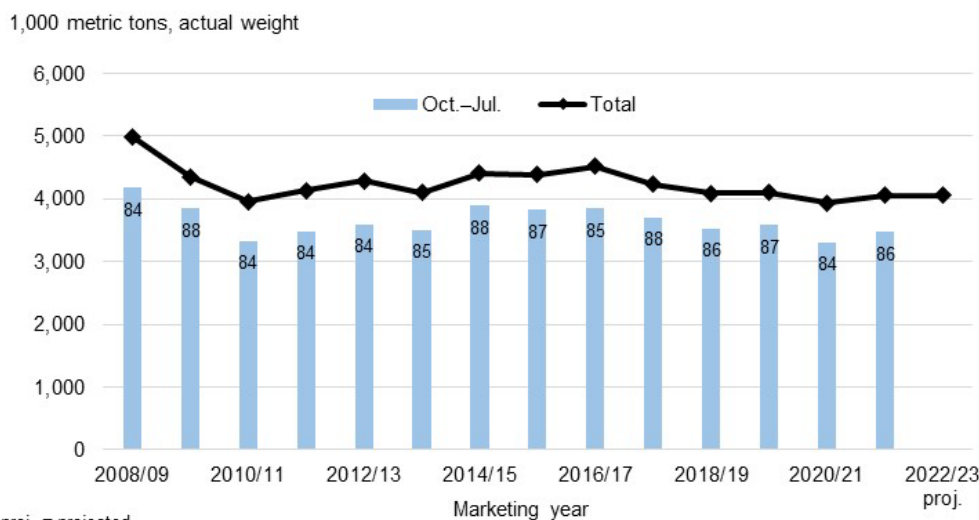
Sources: USDA, World Agricultural Outlook Board; USDA, Economic Research Service; Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

Deliveries Unchanged in 2021/22 and 2022/23

Sugar deliveries for human consumption—both at 4.050 million MT in 2021/22 and 2022/23—are carried over from last month (table 10). While May 2022 deliveries are the lowest since 2014/15, sugar deliveries rebounded in June and were in line with the 5-year average in July. As such, the cumulative deliveries through July represent an estimated 86 percent of 4.050 million MT, which is consistent with the 5-year average pace (figure 13).

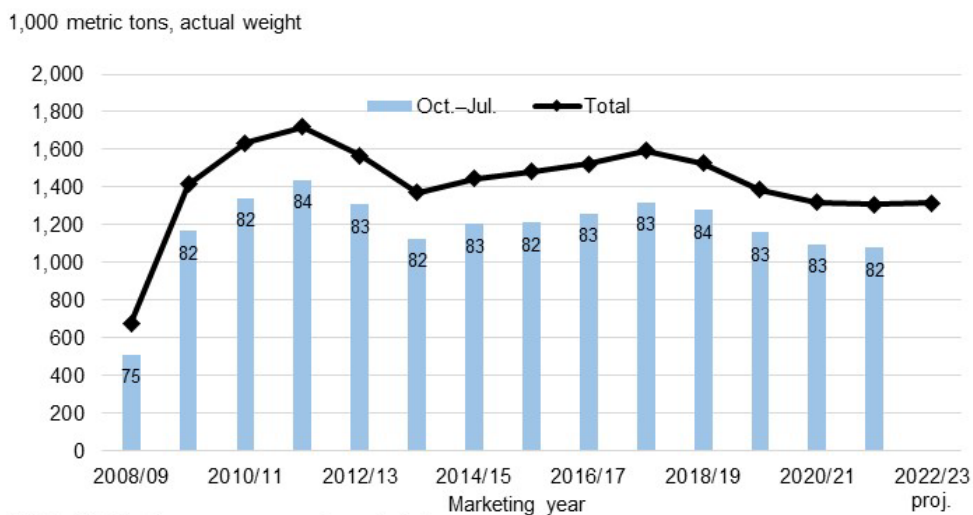
The 2021/22 and 2022/23 consumption of high-fructose corn syrup (HFCS) at 1.310 million MT and 1.317 million MT, respectively, also did not change from last month. Except for December 2021, monthly HFCS deliveries have been consistently below the 5-year average. Thus, cumulatively, an estimated 82 percent of the 2021/22's 1.310 million MT has been consumed, which is slightly behind the recent years' pace (figure 14).

Figure 13
Mexican cumulative sugar deliveries for consumption, October–July, 2008/09–2021/22



proj. = projected.
 Note: The numbers inside the bars represent the percent share of cumulative consumption out of the total.
 Source: Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

Figure 14
Mexican cumulative HFCS consumption, October–July, 2008/09–2021/22



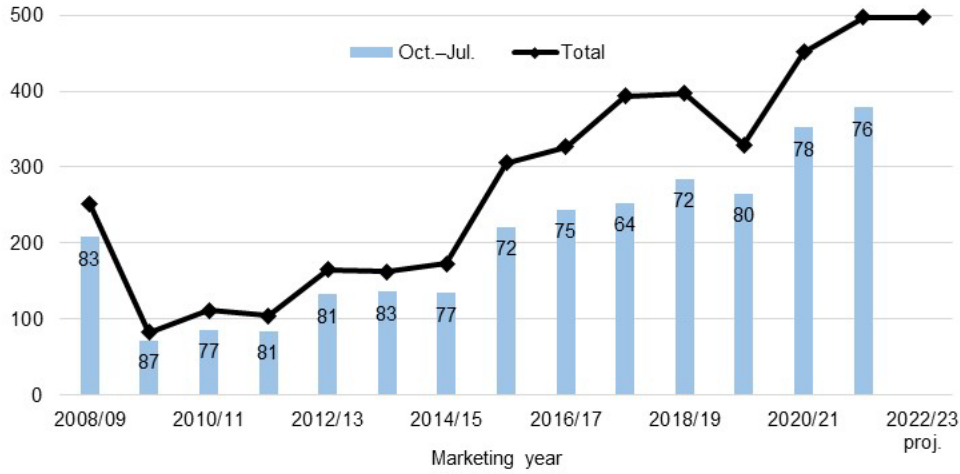
HFCS = high-fructose corn syrup; proj. = projected.
 Note: The numbers inside the bars represent the percent share of cumulative consumption out of the total.
 Source: Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

The other delivery component, which is the amount of sugar destined for the *Industria Manufacturera, Maquiladora y de Servicios de Exportación* (IMMEX) program—equal to 497,000 MT in both 2021/22 and 2022/23—are also unchanged from last month. Out of the total, 432,000 MT are sourced from domestic production and the remaining (65,000 MT) from imports. IMMEX, a federal program, allows manufacturers of sugar-containing products to use imported and domestically produced sugar as inputs if the products are exported within 6 months. Monthly data show that the pace in the last 10 months, 76 percent of the total 497,000 MT has already been delivered (figure 15).

Figure 15

Mexican cumulative domestic IMMEX deliveries, October–July, 2008/09–2021/22

1,000 metric tons, actual weight



IMMEX = Industria Manufacturera, Maquiladora y de Servicios de Exportación; proj. = projected.
 Note: The numbers inside the bars represent the percent share of cumulative deliveries out of the total.
 Source: Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

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