



Sugar and Sweeteners Outlook: July 2022

Vidalina Abadam, coordinator

In this report:

[U.S. Sugar Outlook](#)
[Mexico Sugar Outlook](#)

U.S. Sugar Supply and Use Raised for 2022/23

In the July 2022 *World Agricultural Supply and Demand Estimates*, U.S. sugar supply in 2022/23 is raised from last month on a larger forecast of beet sugar production and imports after two sugar program announcements in July. Beet sugar production in 2022/23 is increased solely on larger expected sugarbeet acreage to offset the expected yield reduction due to delayed planting in May. The larger 2022/23 import forecast stems from the estimated spillover into fiscal year 2023 of the July 11 U.S. Department of Agriculture (USDA) action that increased the 2021/22 raw sugar tariff rate quota (TRQ) imports with an entry extension through October 31. There has been no announcement to date for the additional specialty sugar TRQ. U.S. sugar use in 2022/23 is increased with expectation that the strong pace seen in 2021/22 continues well into 2022/23.

Mexico's exports to the United States are raised to a maximum level given the current Mexican balance sheet. The resulting stocks-to-use ratio is 12.4 percent, which is lower than the anticipated 13.5-percent stocks-to-use ratio stipulated in the sugar suspension agreements.

U.S. Outlook Summary

U.S. Sugar Supply and Use Increased in Both Years

In the July 2022 *World Agricultural Supply and Demand Estimates (WASDE)*, U.S. total sugar supply in 2021/22 is raised 214,000 short tons, raw value (STRV) from last month to 14.522 million mostly due to two USDA actions in July (table 1). On July 1, the U.S. Department of Commerce, upon the request of USDA, increased Mexico's 2021/22 Export Limit by 135,000 STRV of raw sugar with a polarity of less than 99.5 degrees. On July 11, USDA increased the 2021/22 raw sugar tariff-rate quota (TRQ) by 99,999 STRV and extended the entry by October 31. Sugar deliveries for food use in 2021/22 is increased 150,000 STRV to 12.600 million on strong pace to date, partially offsetting the two policy-induced increase in imports. The net result is an ending stocks of 1.782 million STRV, which is 64,000 more than last month, and translates to a 14-percent stocks-to-use ratio for 2021/22.

U.S. total sugar supply and use for 2022/23 are revised upwards from last month. Supply is increased 677,000 short tons, raw value (STRV) to 14.229 million on larger forecast for beet sugar production and imports, which is only partially offset by an increase in deliveries. Beet sugar production is increased 125,000 STRV to 4.934 million based on updated National Agricultural Statistics Service (NASS) acreage data that showed increased area planted and harvested to sugarbeets to offset the expected yield reduction due to delayed planting in May. Out of the USDA's 99,999-STRV raw sugar TRQ increase, 55,000 STRV is expected to enter in fiscal year 2023 due to the October entry extension. There has been no announcement to date for the additional specialty sugar TRQ. Mexico's exports to the U.S. are raised to 433,000 STRV, which is at the maximum level given the current Mexican balance sheet. Deliveries for food use is raised 75,000 STRV to 12.525 million as the strong pace of sugar deliveries for food use observed in 2021/22 is forecast to continue for some time in 2022/23. The resulting ending stocks is 1.564 million STRV, up 602,000 from last month but reflects a stocks-to-use ratio of 12.4 percent which is lower than the anticipated 13.5-percent stocks-to-use ratio stipulated in the sugar suspension agreements.

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

Items	2020/21		2021/22			2022/23		
		June (estimate)	July (estimate)	Monthly change	June (forecast)	July (forecast)	Monthly change	
	1,000 short tons raw value							
Beginning stocks	1,618	1,705	1,705	0	1,718	1,782	64	
Total production	9,234	9,121	9,117	-3	8,822	8,947	125	
Beet sugar	5,092	5,154	5,156	2	4,809	4,934	125	
Cane sugar	4,142	3,967	3,961	-5	4,013	4,013	0	
Florida	2,090	1,938	1,933	-5	2,000	2,000	0	
Louisiana	1,918	1,906	1,906	0	1,910	1,910	0	
Texas	134	122	122	0	103	103	0	
Total imports	3,195	3,482	3,699	217	3,013	3,501	488	
Tariff-rate quota imports	1,749	1,727	1,766	38	1,390	1,445	55	
Other program imports	292	300	300	0	250	250	0	
Non-program imports	1,154	1,455	1,634	179	1,373	1,806	433	
Mexico	968	1,220	1,355	135	1,323	1,756	433	
High-duty	186	235	278	44	50	50	0	
Total supply	14,047	14,308	14,522	214	13,553	14,230	677	
Total exports	49	35	35	0	35	35	0	
Miscellaneous	40	0	0	0	0	0	0	
Total deliveries	12,251	12,555	12,705	150	12,555	12,630	75	
Domestic food and beverage use	12,135	12,450	12,600	150	12,450	12,525	75	
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) sale for ethanol	0	0	0	0	0	0	0	
Total use	12,340	12,590	12,740	150	12,590	12,665	75	
Ending stocks	1,707	1,718	1,782	64	963	1,565	602	
Private	1,707	1,718	1,782	64	963	1,565	602	
Commodity Credit Corporation	0	0	0	0	0	0	0	
Stocks-to-use ratio (percent)	13.8	13.6	14.0	0.3	7.6	12.4	4.7	

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

Increased Acreage Raises Expected U.S. 2022/23 Beet Sugar Production

Beet sugar production forecast in 2022/23 is raised 125,000 STRV to 4.934 million (table 2) based on the June 30 National Agricultural Statistics Service (NASS) *Acreage* report, which included revised forecasts for planted area and the first forecast for harvested area. Based on June surveys, the updated report based showed growers planted 1,178.4 million acres of sugarbeets, up 3.1 percent from what they intended in the March *Prospective Plantings* forecast and up 1.6 percent from 2021 (table 3). This year's *Acreage* report was particularly significant given the wet and cold spring conditions that delayed planting by 3 to 4 weeks—the latest in history for some areas in the Red River Valley. Additional acreage was planted largely to compensate for the expected yield reduction due to the late planting. Increases in the top-

producing States of Minnesota and North Dakota offset the decreases in Michigan and Montana. If realized, the 2022/23 planted acreage would be the largest since 2013/14 (figure 1). Harvested area in 2022/23 is forecast at 1,146.1 million acres, a 3.5-percent increase from the previous year (table 4) and the largest since 2014/15 (figure 1). The result is a sugarbeet production forecast for 2022/23 totaling 31.950 million short tons, up 918,000 from last month (table 2).

Table 2: Beet sugar production projection calculations, 2019/20–2022/23

	2020/21	2021/22	2021/22	Monthly change	2022/23	2022/23	Monthly change
		June	July		June	July	
Sugarbeet production (1,000 short tons) 1/	33,610	36,751	36,751	0	31,032	31,950	918
Sugarbeet shrink (percent)	6.60	8.47	7.58	-0.9	6.58	6.58	0.0
Sugarbeet sliced (1,000 short tons)	31,392	33,639	33,966	327	28,991	29,849	858
Sugar extraction rate from slice (percent)	15.34	14.69	14.64	-0.1	14.63	14.63	0.0
Sugar from beets sliced (1,000 STRV) 2/	4,817	4,941	4,972	31	4,241	4,367	126
Sugar from molasses (1,000 STRV) 2/	362	360	360	0	360	360	0
Crop year sugar production (1,000 STRV) 2/	5,181	5,330	5,332	2	4,601	4,727	126
August–September sugar production (1,000 STRV)	765	676	676	0	500	500	0
August–September sugar production of subsequent crop (1,000 STRV)	676	500	500	0	678	678	0
Sugar from imported beets (1,000 STRV)	N/A	28	28	0.0	30	30	0.0
Fiscal year sugar production (1,000 STRV) 3/	5,092	5,154	5,156	2	4,809	4,934	125

NA = not applicable.

1/ USDA, National Agricultural Statistics Service.

2/ August–July.

3/ Sugar from imported beets in 2021/22 are already included in the crop year sugar production.

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

Table 3: Sugarbeet planted area, 2018/19–2022/23

State	2018/19	2019/20	2020/21	2021/22	2022/23	Annual change
				est.	proj.	
	1,000 acres					Percent
Minnesota	415.0	425.0	433.0	427.0	455.0	6.6
North Dakota	202.0	212.0	221.0	226.0	243.0	7.5
Idaho	163.0	171.0	171.0	172.0	173.0	0.6
Michigan	150.0	146.0	157.0	155.0	140.0	-9.7
Nebraska	45.5	44.0	46.2	44.4	46.0	3.6
Montana	43.5	41.8	43.6	43.7	34.0	-22.2
Wyoming	32.1	31.6	30.7	31.2	29.7	-4.8
Colorado	26.3	25.1	24.2	24.3	23.7	-2.5
California	24.6	24.5	24.1	24.0	24.0	0.0
Oregon	9.3	10.0	9.5	10.5	8.0	-23.8
Washington	1.8	2.0	1.9	1.9	2.0	5.3
U.S. total	1,113.1	1,133.0	1,162.2	1,160.0	1,178.4	1.6

est. = estimated; proj. = projected.

Source: USDA, National Agricultural Statistics Service.

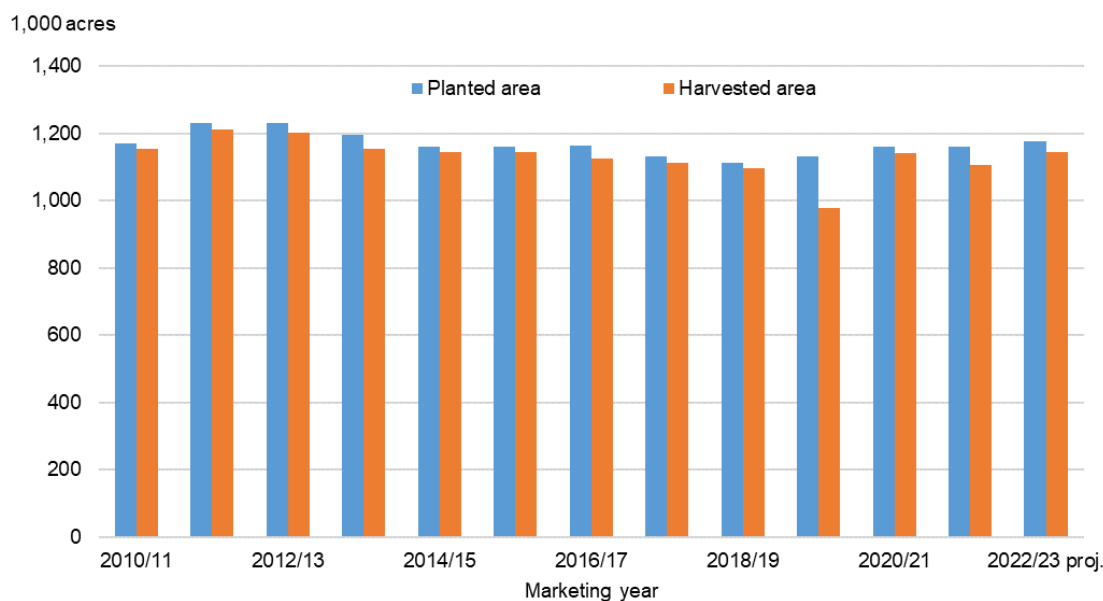
Table 4: Sugarbeet harvested area, 2018/19–2022/23

State	2018/19	2019/20	2020/21	2021/22 est.	2022/23 proj.	Annual change Percent
	1,000 acres					
Minnesota	408.0	337.0	429.0	396.0	441.0	11.4
North Dakota	199.0	170.0	218.0	222.0	235.0	5.9
Idaho	163.0	165.0	168.0	170.0	170.0	0.0
Michigan	148.0	145.0	154.0	142.0	137.0	-3.5
Nebraska	44.1	42.1	45.7	43.8	44.4	1.4
Montana	42.4	36.5	38.1	43.5	33.5	-23.0
Wyoming	30.7	24.0	30.6	30.6	29.0	-5.2
Colorado	25.5	24.3	23.7	23.6	22.4	-5.1
California	24.6	24.4	23.4	23.8	23.9	0.4
Oregon	9.3	9.8	9.4	10.4	7.9	-24.0
Washington	1.8	2.0	1.9	1.9	2.0	5.3
U.S. total	1,096.4	980.1	1,141.8	1,107.6	1,146.1	3.5

est. = estimated; proj. = projected.

Source: USDA, National Agricultural Statistics Service.

Figure 1
Sugarbeet planted and harvested area, 2010/11–2022/23



proj = projected.

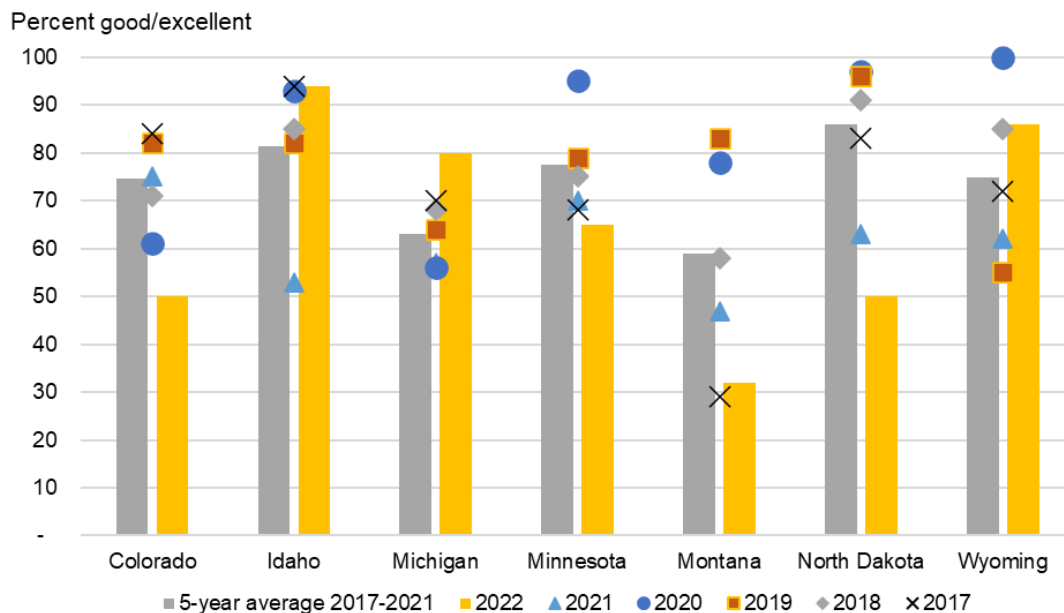
Source: USDA, National Agricultural Statistics Service.

There were reports of strong winds, dust, and hail during April and June in several States, including Minnesota and North Dakota. These weather events reportedly may have severely damaged young sugarbeet plants, including those in the additional acreage, and may need to be replanted. However, some growers are considering whether or not to replant at such a late

date. The forecast for national yield, sugarbeet shrink, sucrose recovery, and early season production are carried over from last month. Some companies are reportedly considering delaying the start of harvest campaign to allow for adequate crop development, which will likely affect available sugar supplies from early season production. Beet processors will conduct initial pre-harvest field samples in mid to late July, which will provide an objective insight of the crop's performance. The first official USDA sugarbeet yield forecast will be released by NASS in its August *Crop Production* report.

Important crop development stages and pest management occur during the summer. Beet crop conditions are reported by NASS for some of the sugarbeet-producing States. As of July 10, sugarbeet crops in Minnesota, the largest producing State, are 65 percent good/excellent, 25 percent fair, and 10 percent poor/very poor. Conditions in Idaho, the second leading producing State, are 94 percent good/excellent, 6 percent fair, and 0 percent poor/very poor. In North Dakota, the third leading producer, conditions are 50 percent good/excellent, 30 percent fair, and 20 percent poor/very poor. Given this year's challenging weather and field conditions, the good-to-excellent ratings of the current crop is lower than the 5-year average during the same time across States except for Idaho, Michigan, and Wyoming (figure 2).

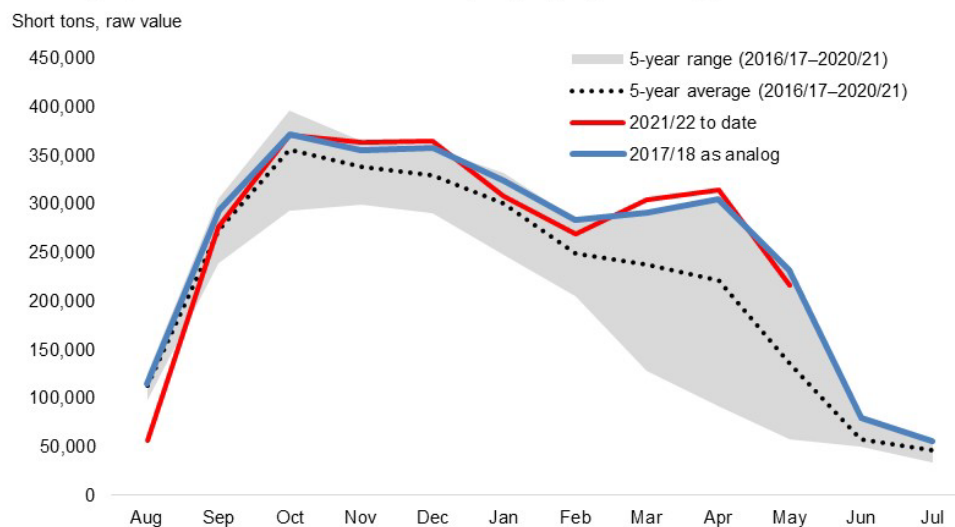
Figure 2
Sugarbeet conditions in major producing States as of July 10, 2022 1/



1/ Week 27; exact dates vary by year. Years represent marketing year.
 Source: USDA, National Agricultural Statistics Service.

Beet sugar production in 2021/22 is marginally increased by 2,000 STRV to 5.156 million (table 2). With the extended slicing campaign in the Red River Valley (RRV) finally over in June, the estimate for sliced beets and sugar from sliced beets are adjusted upward based on the most recent processors' submission to the Farm Service Agency's *Sweetener Market Data (SMD)* report. While the actual production reported to SMD lags by two months, processors' data through May in the RRV—where more than half of the sugar is produced—supports a strong finish as in 2017/18. USDA conversations with processors indicated that the quality of the frozen beet piles held up relatively well through the end of the campaign. Production between March to May either surpassed or matched the prior record high in 2017/18 (figure 3). Output to date of 2.839 million STRV has caught up with prior years as it reflects 95 percent of their 2.979 million-STRV crop year sugar production estimate (figure 4).

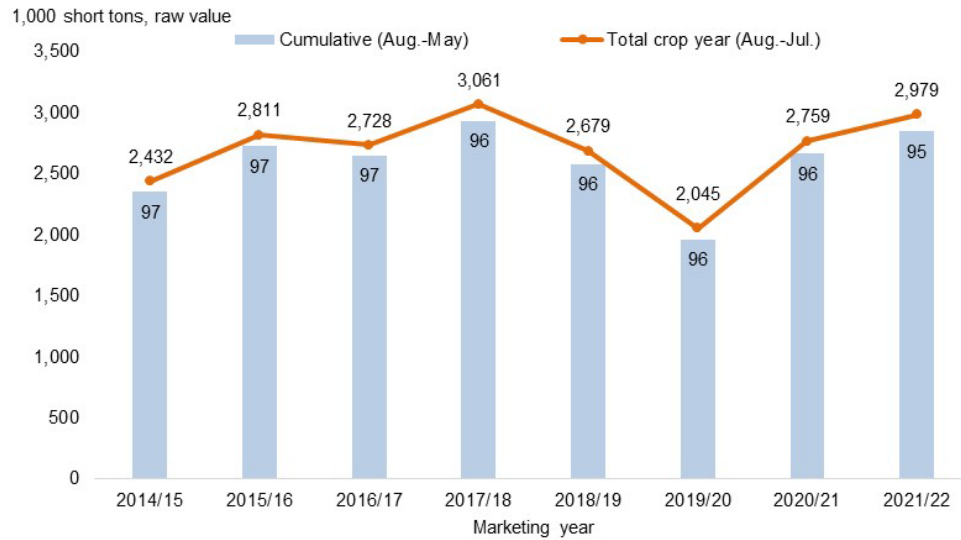
Figure 6
Beet sugar production in the Red River Valley region, August to July, 2016/17–2021/22



Note: On average, sugarbeet processors in the Red River Valley region, which includes Minnesota and North Dakota, produce more than half of the U.S. total beet sugar.

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

Figure 4
Cumulative (August to May) and total crop year beet sugar production (August to July), and percent share of cumulative in total crop year estimate, 2014/15–2021/22



Note: The numbers inside the bars represent the percent of actual production in total crop year estimate.
 Sources: USDA, Economic Research Service; USDA, Farm Service Agency.

Cane Sugar Production in 2021/22 Marginally Adjusted; Outlook Unchanged in 2022/23

Cane sugar production in 2021/22 is estimated at 3.961 million STRV, down 5,000 from last month, entirely due to revision in Florida’s production, which now stands at 1.933 million (table 5). Processors marginally adjusted the data reported to USDA’s Farm Service Agency to reflect final production numbers. The Florida campaign typically runs through April or May, but as with last year, this year’s season extended into early June. Louisiana sugar production in 2021/22—which includes an estimate for the September 2022 production that is in line with historical averages—remains at 1.906 million STRV. Texas’ 122,000 STRV is also unchanged from the previous month’s estimate.

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	400.0
Sugarcane harvested for sugar (1,000 acres)	397.0	397.0	397.0	409.0	388.0	385.5
Sugarcane yield (short tons per acre)	40.9	41.7	42.8	44.4	42.4	42.4
Sugarcane production (1,000 short tons)	16,237	16,555	16,992	18,078	16,451	16,355
Recovery rate (percent)	12.2	12.1	12.4	11.6	11.7	12.2
Sugar production (1,000 STRV)	1,983	2,005	2,106	2,090	1,933	2,000
Louisiana						
Sugarcane harvested for sugar and seed (1,000 acres)	449.6	448.5	469.0	488.4	495.3	492.0
Sugarcane harvested for sugar (1,000 acres)	414.0	425.0	442.0	461.0	466.0	462.0
Sugarcane yield (short tons per acre)	32.5	35.3	27.7	32.9	29.0	31.5
Sugarcane production (1,000 short tons)	13,455	15,003	12,243	15,167	13,514	14,544
Recovery rate (percent)	13.84	12.71	12.73	13.02	13.86	13.13
Crop year sugar production (1,000 STRV) 1/	1,862	1,907	1,558	1,975	1,874	1,910
Fiscal year sugar production (1,000 STRV) 1/	1,859	1,938	1,566	1,918	1,906	1,910
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	30.7
Sugarcane yield (short tons per acre)	36.8	36.6	33.6	34.1	30.8	34.8
Sugarcane production (1,000 short tons)	1,490	1,376	1,052	1,139	1,056	1,067
Recovery rate (percent)	10.1	11.3	10.7	12.0	11.7	11.6
Sugar production (1,000 STRV)	169	147	126	134	122	103
United States						
Sugarcane harvested for sugar and seed (1,000 acres)	904.1	899.7	913.2	947.6	935.2	924.3
Sugarcane harvested for sugar (1,000 acres)	851.5	859.6	870.3	903.4	888.3	878.2
Sugarcane yield (short tons per acre)	36.6	38.3	34.8	38.1	34.9	36.4
Sugarcane production (1,000 short tons)	31,182	32,934	30,287	34,384	31,021	31,966
Recovery rate (percent)	12.9	12.3	12.5	12.2	12.7	12.6
Crop year sugar production (1,000 STRV)	4,014	4,060	3,790	4,198	3,928	4,013
Fiscal year sugar production (1,000 STRV)	4,011	4,091	3,798	4,141	3,961	4,013

STRV = short tons, raw value.

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

The outlook for 2022/23 cane sugar production in each state remain unchanged from last month: 2 million STRV in Florida; 1.910 million in Louisiana, and 103,000 in Texas (table 5). If realized, the over-the-year increases in Florida and Louisiana offset the decline in Texas to bring the total 2022/23 cane sugar production to 4.013 million STRV, a 1.3 percent increase from 2021/22. Given that it is still early in the development period, the current projections reflect crops that are in line with recent averages for yield and sucrose recovery.

The June NASS *Acreage* report provided the first USDA forecast information for the 2022/23 harvested sugarcane area. Since sugarcane is a multi-year crop, planted area is not projected. U.S. sugarcane harvested area is forecast at 924,300 acres in 2022/23, down 10,900 acres or 1.2 percent from the previous year, with decreases across the three growing States (table 6).

This total includes both sugarcane harvested area for sugar production and sugarcane dedicated for seed stock.

Table 6: Sugarcane total harvested area, 2018/19–2022/23

State	2018/19	2019/20	2020/21	2021/22 est.	2022/23 proj.	Annual change	
	1,000 acres					1,000 acres	Percent
Florida	412.3	410.7	423.3	403.5	400.0	-3.5	-0.9
Louisiana	448.5	469.0	488.4	495.3	492.0	-3.3	-0.7
Texas	38.9	33.5	35.9	36.4	32.3	-4.1	-11.3
U.S. Total	899.7	913.2	947.6	935.2	924.3	-10.9	-1.2

est. = estimated; proj. = projected.

Note: Total includes harvested area for sugar production and seed stock.

Source: USDA, National Agricultural Statistics Service.

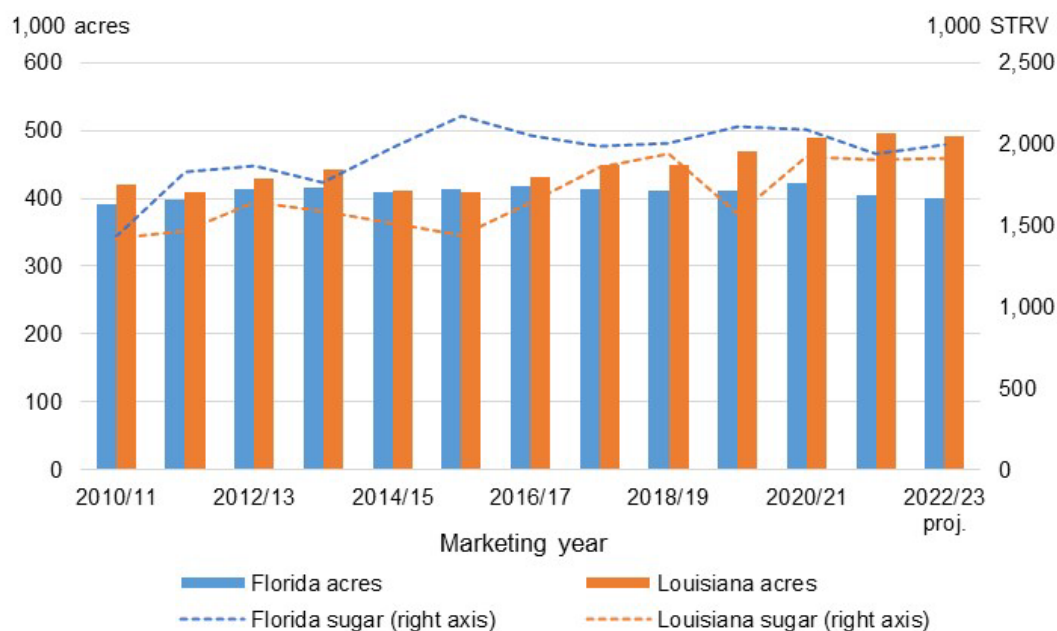
The largest decline over the year is in Texas (down 4,100 acres), followed by Florida (3,500) and Louisiana (3,300). Texas is forecast to harvest 32,300 acres, which would be an 11.3-percent decrease from the previous year and the lowest for the State since 1997/98. Rains during the August-October 2021 planting season prevented growers from entirely replacing the less-than-ideal cane acres that were ploughed up because they had old crop and poor irrigation.

Sugarcane area in Florida is forecast at 400,000 acres, 0.9 percent lower than 2021/22 and the State's lowest total since 2011/12. However, sugar production, which has been primarily driven by sugarcane yields and processor recovery rates, has been relatively stable over the years (figure 5).

Although Louisiana's 492,000 acres is 0.7 percent lower than last year, if realized, it continues the upward trend in sugarcane area observed since 2016/17 (figure 5) when the adoption of cold-tolerant varieties allowed expansion on the northern edges of the State's growing region.

Out of the three States, Louisiana is the only one for which NASS publishes a weekly sugarcane crop condition rating. As of week 27, which ended on July 10, the good-to-excellent rating stands at 85 percent, which is the highest at this same time since 2016/17 (table 7). The rest of the ratings are 14 percent fair (versus 29 percent last year) and 1 percent poor/very poor (6 percent). This report is supportive of USDA communication with several processors who indicated that the current crop is at par and even superior than last year in terms of population, height, and growth rate despite pockets of drought in some areas.

Figure 5
Sugarcane total harvested area and sugar production, Florida and Louisiana, 2010/11–2022/23



STRV = short tons, raw value; proj. = projected.
 Note: Total includes harvested area for sugar production and seed stock.
 Source: USDA, National Agricultural Statistics Service.

Table 7: Crop conditions in Louisiana through July 10, 2022 1/

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	5-year average
Excellent	15	13	10	11	13	18	12
Good	63	47	57	67	52	67	57
Fair	20	33	27	16	29	14	25
Poor	2	7	5	6	6	1	5
Very poor	0	0	1	0	0	0	0
Weighted condition index 2/	391	366	370	383	372	402	376

1/ Week 27; 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.

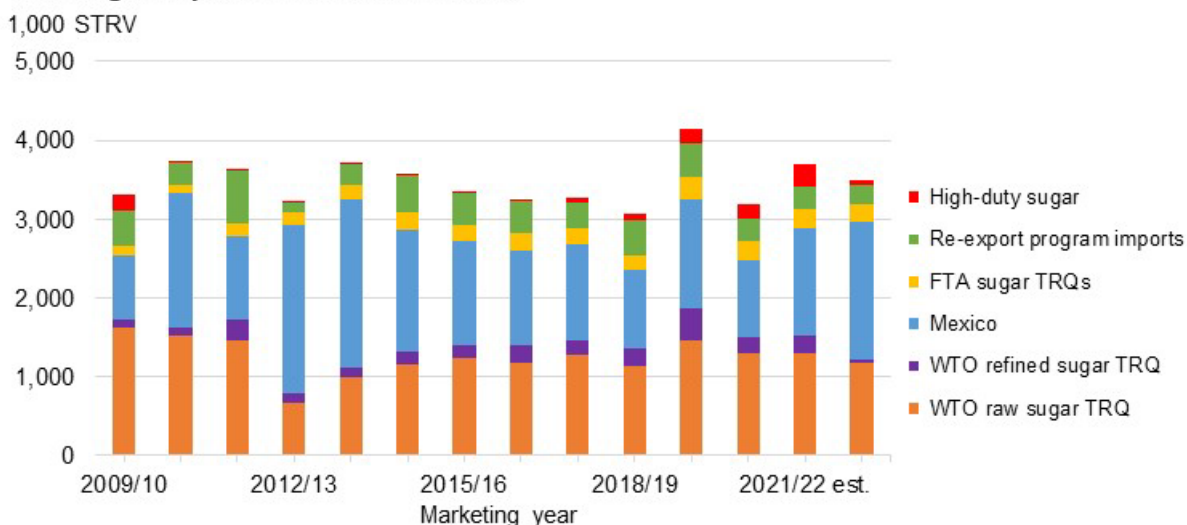
Source: USDA, Economic Research Service; USDA, National Agricultural Statistics Service.

Sugar Program Announcements Raised Outlook for Imports in 2021/22 and 2022/23

Estimated 2021/22 imports are raised from last month by 217,000 STRV to 3.699 million, incorporating two USDA actions in July and increased pace of high-tier sugar entry. There are no changes to the other 2021/22 import categories. If realized, the expected 2021/22 imports will be the second largest since 2012/13, just behind 2019/20, which saw record-high imports

in response to the weather-reduced beet sugar production (figure 6).

Figure 6
U.S. sugar imports, 2007/08 to 2022/23



STRV = short tons, raw value; FTA = free trade agreement; WTO = World Trade Organization; TRQ = tariff rate quota; est. = estimated.
 Source: USDA, Foreign Agricultural Service.

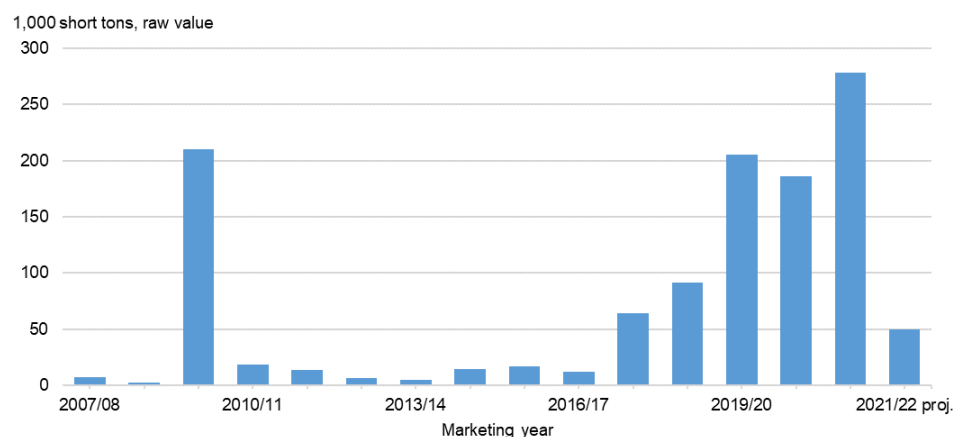
On July 1, at the request of USDA, the U.S. Department of Commerce increased Mexico’s 2021/22 Export Limit by 135,000 STRV of Other Sugar. This additional raw sugar, which must have a polarity of less than 99.5 as produced and measured on a dry basis, should be exported to the U.S. no later than September 30 freely flowing (i.e., not in a container, tote, bag or otherwise packaged) into the holds of an ocean-going vessel. As a result, 2021/22 imports from Mexico are increased from last month by 135,000 STRV to 1.355 million.

The second July action was on the July 11, when USDA increased the 2021/22 raw sugar tariff-rate quota (TRQ) by 99,999 STRV and extended the entry by October 31. Although the United States Trade Representative has not yet allocated the TRQ to supplying countries, USDA projects that the entry will be split as follows: 38,270 STRV by September 30 and 55,115 by October 31. As such, the latter amount will be accounted for as an increase in the 2022/23 imports. The remaining 6,614 is expected to add to TRQ shortfall, or import quotas not fulfilled.

High-tier imports in 2021/22 is increased by 43,927 STRV to 278,000 on additional entry of raw sugar imports in June that paid the high duty, as well as on expectation of increased

entry pace of high-duty refined sugar during the last fiscal year quarter (figure 7). If realized, this high-tier sugar import volume would be a new record, surpassing the previous high of 207,380 STRV in 2009/10 by more than 70,000 or 34 percent. This is the fifth consecutive month since the February 2022 *World Agricultural Supply and Demand Estimates (WASDE)* that the 2021/22 high-tier imports estimate is revised upwards. Even with the upward revision, an estimated 93 percent of the estimated total high-tier imports has already been imported through June, compared with the 5-year average pace of 61 percent (table 8). With two more months left in this fiscal year, the estimate may be raised further, especially given the current high price environment in the U.S. compared with the world sugar prices.

Figure 7
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 8: U.S. sugar imports, October to June, 2016/17 to 2021/22

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22 estimated	5-year average
1,000 short tons, raw value							
October to June							
Mexico	906	898	695	1,010	711	938	844
WTO raw sugar TRQ	904	1,061	953	989	1,079	908	997
WTO refined sugar TRQ	186	154	167	403	173	193	217
FTA sugar TRQ	168	149	132	177	178	179	161
Re-export program	268	202	305	306	160	260	248
High-duty sugar	7	32	71	83	135	260	66
Total	2,439	2,496	2,324	2,967	2,435	2,738	2,532
Share of fiscal year total							
				Percent			
Mexico	75	73	70	73	73	69	73
WTO raw sugar TRQ	77	83	83	67	83	70	79
WTO refined sugar TRQ	85	81	81	99	80	80	85
FTA sugar TRQ	80	74	70	64	75	77	73
Re-export program	64	62	70	71	55	87	64
High-duty sugar	60	50	78	45	73	93	61
Total	75	76	76	72	76	74	75

WTO = World Trade Organization; TRQ = tariff rate quota; FTA = free trade agreement.
Source: USDA, Foreign Agricultural Service.

Increase in 2022/23 Imports Largely Driven by Mexico

U.S. imports in 2022/23 are raised 488,000 STRV from last month to 3.501 million. As discussed above, out of this total increase, 55,115 STRV is part of the USDA's 2021/22 99,999-STRV raw sugar TRQ increase-plus-entry-extension that is expected to arrive by October 31. Given there are no changes to the other import categories and the additional specialty sugar TRQ has not been announced, the bulk of the total increase—roughly 433,000 STRV—is attributed to the higher projected imports from Mexico.

Per the U.S.-Mexico sugar suspension agreements, the initial 2022/23 imports from Mexico are residually calculated based on the anticipated U.S. Needs calculation using the July *WASDE* to achieve an ending stocks-to-use ratio of 13.5 percent. As it now stands, the Mexican balance sheet implies that Mexico's exports to the U.S. in 2022/23 are at a constrained level of 1.756 million STRV, leaving zero exportable surplus to other countries. Still, at this magnitude, the resulting U.S. 2022/23 stocks-to-use ratio is only 12.4 percent. A 13.5-percent stocks-to-use ratio would assign a larger volume—1.901 million STRV—to Mexico based on the U.S. Needs formula¹.

U.S. Sugar Prices Expected To Remain High; Makes High-Tier Imports Attractive

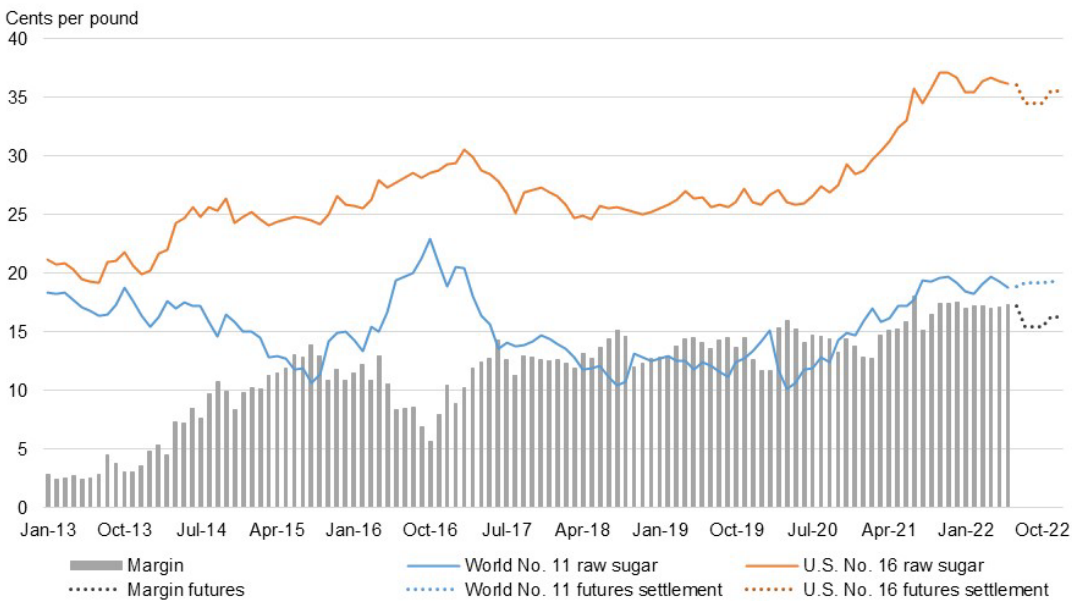
The persistent high U.S. prices made it economical to import raw and refined sugar even after paying the high-tier duty rate of 15.36 per pound and 16.21, respectively, and accounting for logistic costs. While the U.S. No. 16 raw sugar futures seemed to ease since the recent USDA actions, the U.S. No. 16 raw cane sugar futures remained at a multi-year high of 35-36 cents per pound (figure 8). With the world No.11 raw cane sugar futures of around 19 cents per pound, the price differential hovers at that 18-cent-per-pound threshold where high-tier raw sugar imports can be feasible depending on the delivery costs.

Due to the lack of spot supplies, U.S. refined sugar beet price in all regions remains unquoted in the *Sosland Sweetener Report* since the beginning of April. Also, beet processors have yet to

¹ U.S. Needs is calculated based on information in the *WASDE* published. The formula is:
U.S. Needs = (Total Use * 1.135) - Beginning Stocks - Production - TRQ Imports - Other Program Imports - High-tier tariff and other imports.

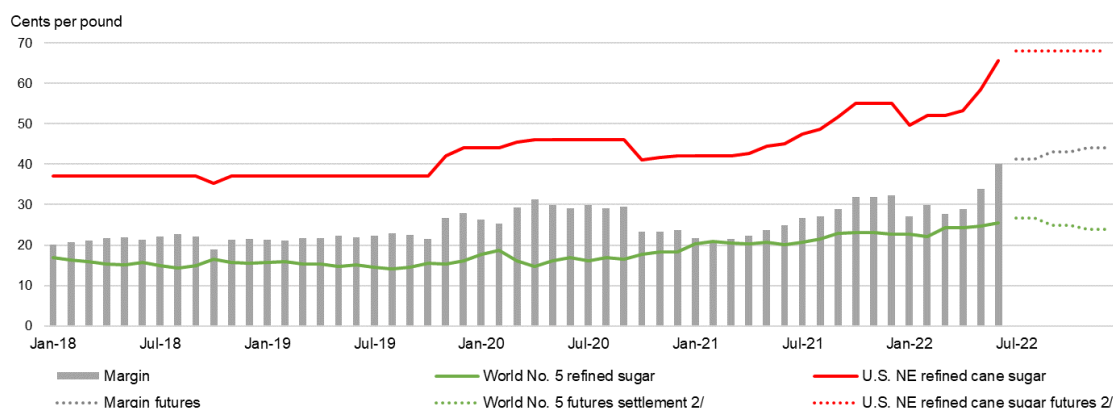
resume offers for the 2022/23 season pending evaluation of the 2022 sugar beet crop. Correspondingly, towards the end of June, Northeast refined cane sugar spot prices reported by Sosland through the end of December increased from 62 to 68 cents per pound free on board (fob) across all regions. Thus, June's average refined cane sugar price of 65.6 cents per pound has surpassed the prior record high of 59.5 cents per pound in August 2010 (figure 9). Given that world No. 5 refined sugar futures are around 18-19 cents per pound, the price margin is more than the 22-cent-per-pound level where entry of high-tier refined sugar imports is profitable. High prices are expected to continue next year based on Sosland's reporting of offers for calendar year 2023 at 56 cents per pound fob on the East and West coasts and at 55 cents per pound fob in the Gulf and Southeast regions.

Figure 8
U.S. and world raw sugar prices and margin, monthly, January 2013 to December 2022



Note: No. 11 and No. 16 contract futures settlement prices, Intercontinental Exchange Inc., on 7/13/2022 out to December 2022.
 Source: USDA, Economic Research Service; Intercontinental Exchange, Inc.

Figure 9
Monthly U.S. refined cane sugar and world refined sugar prices and margin, January 2018 to December 2022



Note: Data on U.S. Northeast refined cane sugar are only available starting January 2018.
 NE = Northeast.
 1/ Nearby futures, No. 5 contract, Intercontinental Exchange Inc., and futures price settlements on 7/13/2022 through December 2022.
 2/ Northeast refined cane sugar and future price as quoted in Milling and Baking News on 7/13/2022 through December 2022.
 Sources: *Milling and Baking News*; Intercontinental Exchange, Inc.

Strong Pace of U.S. Deliveries Increased Outlook in 2021/22

Sugar deliveries for food and beverage use in 2021/22 are increased 150,000 STRV to 12.6 million based on strong pace through the first eight months, particularly of beet sugar deliveries. This increase reflects a 3.8-percent growth from the 2021/22 level of 12.135 million STRV. With no changes to the rest of the categories, 2021/22 total deliveries are also up 150,000 STRV to 12.705 million.

Through May, deliveries for food and beverage use totaled 8.292 million STRV, which are 307,000 STRV higher, or 3.8 percent, than the same time in 2020/21 (table 9). This would be a new record high for the October-May period since 1992/93, surpassing the 8.072 million STRV set in 2019/20. Even after raising the estimate this month, the pace to date represents 65.8 percent of the 2021/22 food use deliveries (table 10). This pace is faster than the 10-year average's 65.2 percent and just below the record-high share of 65.9 percent in 2019/20.

Table 9: Food and beverage deliveries, October–May, 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	3,519	3,487	3,320	2,973	3,238	3,565	327	10.1
Cane sugar refiners	3,987	3,964	4,132	4,332	4,163	4,141	-22	-0.5
Total reporters	7,506	7,451	7,452	7,305	7,401	7,706	305	4.1
Non-reporter, direct consumption	505	438	487	767	583	585	2	0.4
Total	8,011	7,888	7,939	8,072	7,984	8,292	307	3.8

Source: USDA, Farm Service Agency.

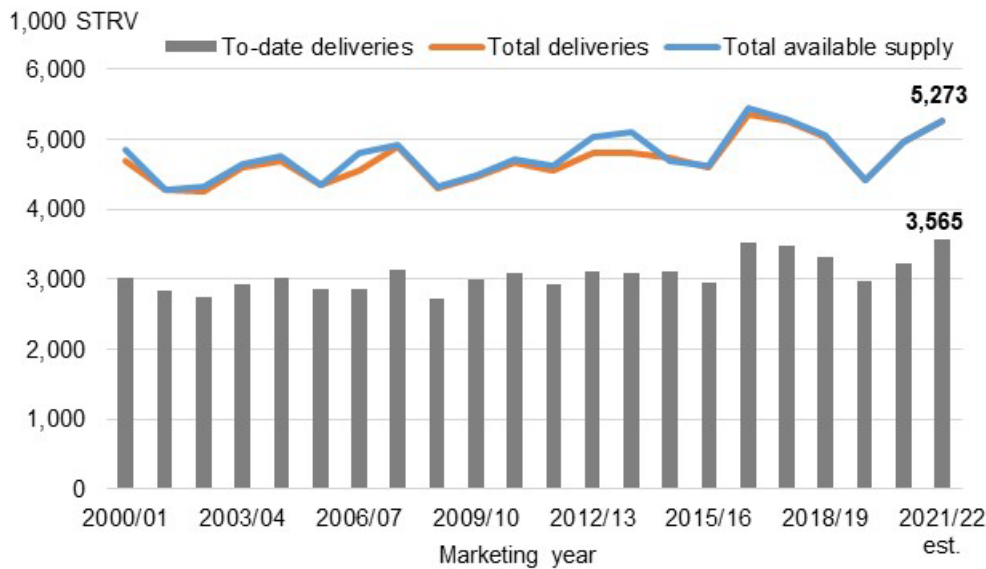
Table 10: Pace of U.S. food and beverage deliveries, October–May, fiscal year 2011–2022

	Oct.–May 1,000 short tons, raw value	Fiscal year (FY)	Percent of total
2010/11	7,216	11,193	64.5
2011/12	7,190	11,141	64.5
2012/13	7,470	11,511	64.9
2013/14	7,687	11,786	65.2
2014/15	7,528	11,921	63.1
2015/16	7,731	11,881	65.1
2016/20	8,011	12,102	66.2
2017/18	7,888	12,048	65.5
2018/19	7,939	12,106	65.6
2019/20	8,072	12,246	65.9
2020/21	7,984	12,135	65.8
2021/22 estimate	8,292	12,600	65.8
10-year average	7,750	11,888	65.2

Source: USDA, Farm Service Agency.

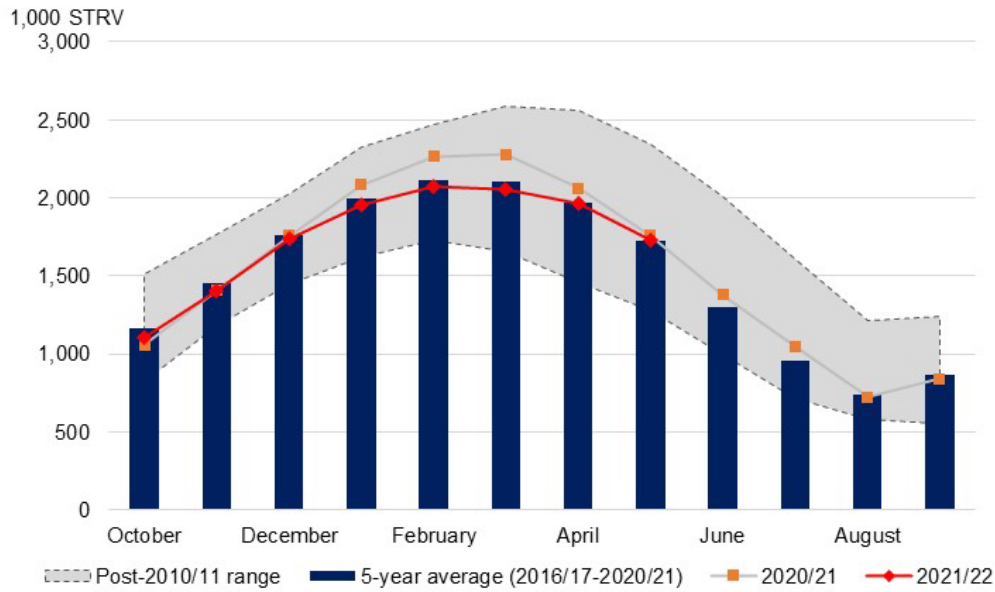
The increased delivery pace to date is mostly driven by beet sugar deliveries, which cumulatively at 3.565 million STRV, is 327,000STRV larger (10.1 percent) than last year. This strong pace offsets the relatively flat trend in cane sugar deliveries and non-reporters' direct consumption imports (table 9). Beet sugar deliveries are contingent upon domestic production, which along with beginning stocks and reasonable ending stocks, constitute the available beet sugar supply. As such, the high pace is made possible by the relatively large estimate for 2021/22 beet sugar production of 5.156 million STRV, which if realized would be the second largest production behind 2017/18's 5.279 million STRV. Adding the beginning beet sugar stocks of 843,000 STRV to the estimated production and subtracting a reasonable ending stock of 726,000 STRV, based on a 5-year average, yields 5.273 million STRV of potential available supply for delivery (figure 10). Refined beet sugar stocks have been tracking the 5-year average since October (figure 11). The current situation—sugar beet processors not offering sugar in either the spot or 2022/23 market since April 13—signals that beet processors have fully contracted their 2021/22 sugar and still waiting on assessment of their considerably delayed new crop planting.

Figure 10
Available beet sugar supply, and cumulative (October to May) and total beet sugar deliveries, 2000/01–2021/22



STRV = short tons, raw value; est. = estimated.
 Note: Total available supply = (Beginning stocks + Production) - Ending Stocks.
 Source: USDA, Economic Research Service; USDA, Farm Service Agency.

Figure 11
Sugarbeet processors' total sugar inventories, monthly, 2010/11 to 2021/22

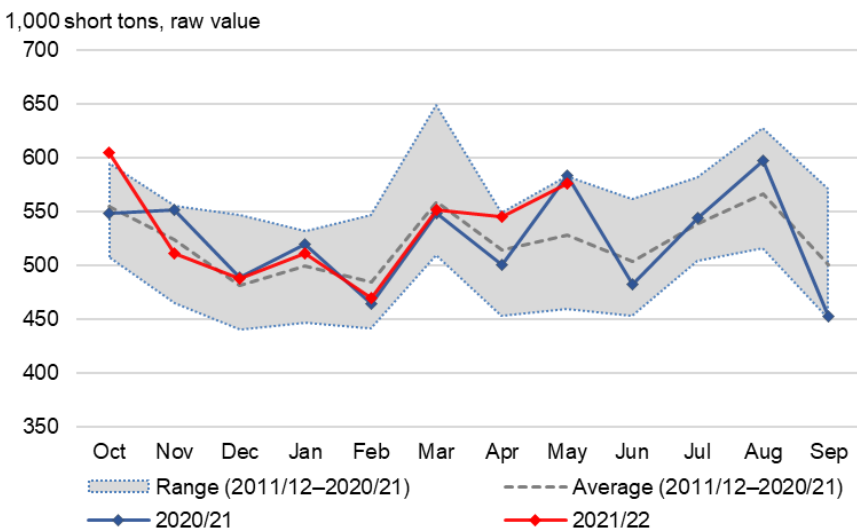


Note: STRV = short tons, raw value.
 Source: USDA, Farm Service Agency.

Accumulated cane refiner deliveries between October to May totaled 4.141 million STRV, down 22,000 (or 0.5 percent) from last year's 4.163 million (table 9). Cane refiner's melt was particularly strong relative to the 5-year average in April and May (figure 12). The recent sugar actions in July can provide additional raw throughput for cane refiners (figure 13) to increase melt and shore up refined sugar inventories (figure 14) in time for seasonally high demand during the July-September period.

The non-reporter, direct consumption imports through May at 585,000 STRV closely match last year's over the same period (table 9) and has contributed to the strong pace of deliveries to date. As such, the magnitude of non-reporter deliveries in the remaining 4 months will be important especially if the continued price margin between the U.S. and global refined sugar markets makes it attractive for high-duty refined imports. Given that the fifth and final tranche for the 2021/22 specialty sugar (organic sugar) is on July 15, another factor is if the demand for organic sugar and price margins over conventional sugar can facilitate a share of the oversubscribed amounts to enter as high tier. The monthly series for non-reporter deliveries is inherently volatile, which makes it difficult to forecast.

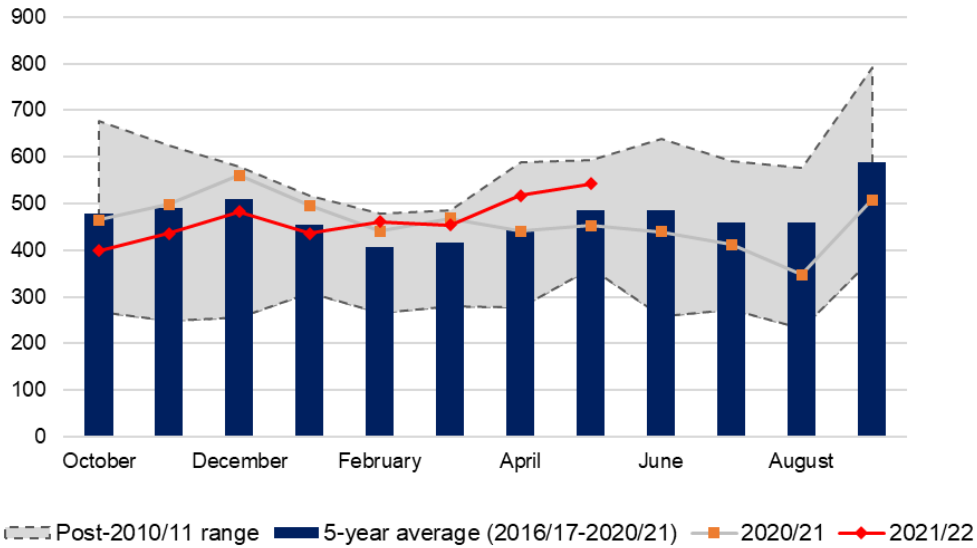
Figure 12
Sugarcane refiners' melt, monthly, 2011/12 to 2021/22



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

Figure 13
Sugarcane refiners' raw sugar inventories, monthly, 2010/11 to 2021/22

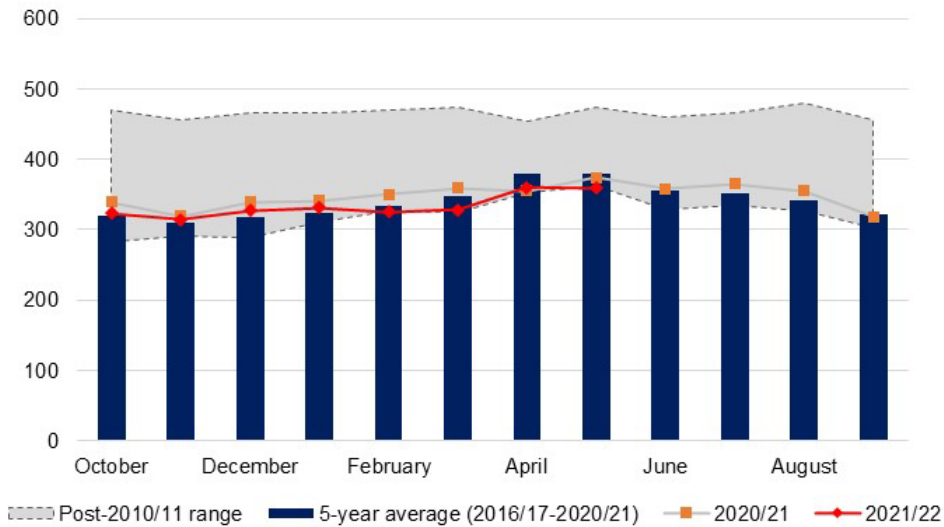
1,000 STRV



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

Figure 14
Sugarcane refiners' refined sugar inventories, monthly, 2015/16 to 2021/22

1,000 STRV

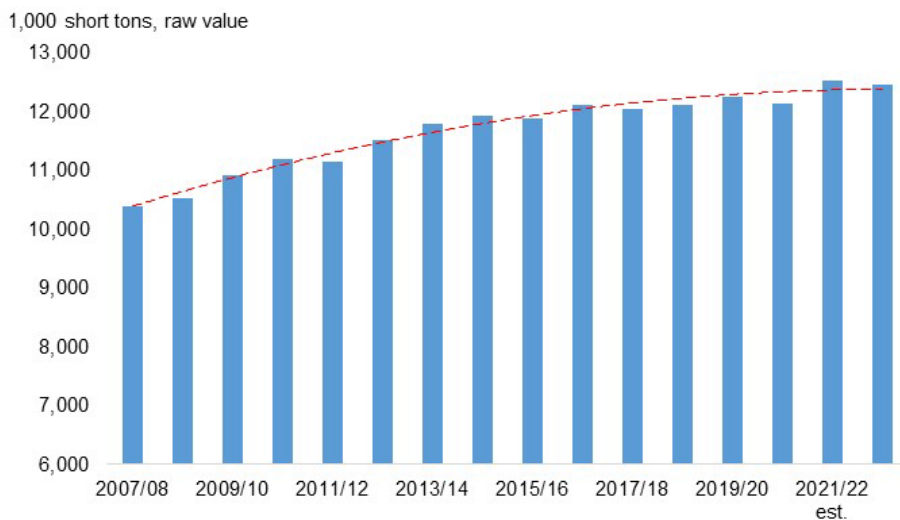


Note: STRV = short tons, raw value.
 Source: USDA, Farm Service Agency.

U.S. Deliveries in 2022/23 Also Raised

Sugar deliveries for food and beverage use in 2022/23 are increased from last month by 75,000 STRV to 12.525 million, considering the probability that the strong pace of deliveries observed in 2021/22 will carry over for some period in 2022/23. If the forecast materializes, it reflects a resumption of the longer-term trend (figure 15).

Figure 15
**U.S. sugar deliveries for food and beverage use, fiscal year,
2007/08 to 2022/23**



Mexico Outlook

2021/22 Harvest Winds Down

With the Mexico sugar harvest winding down and only 3 factories operating, the July 2022 *World Agricultural Supply and Demand Estimates (WASDE)* report lowered Mexican 2021/22 production from last month by 28,000 metric tons (MT) to 6.180 million (table 11). The reduction is based off on Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA) weekly production report as of July 2, which corresponds to week 40 of the production campaign. The 2022/23 production forecast is unchanged at 6 million MT.

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

Items	2020/21			2021/22			2022/23	
		June (estimate)	July (estimate)	Monthly change	June (forecast)	July (forecast)	Monthly change	
	1,000 metric tons, actual weight							
Beginning stocks	858	1,053	1,053	0	947	947	0	
Production	5,715	6,208	6,180	-28	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	7,311	7,283	-28	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	1,817	1,789	-28	1,503	1,503	0	
Exports to the United States and Puerto Rico	828	1,044	1,160	116	1,133	1,503	370	
Exports to other countries	337	772	629	-143	370	0	-370	
Total use	5,585	6,364	6,336	-28	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	15.0	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).

As of July 9, which is week 41, Mexico's total sugar produced is 6.182 million MT, up 472,141 from at the same time last year (table 8). While this year's area harvested mostly trailed 2020/21, the 798,253 hectares to date has overtaken last year's 788,608. Cumulative sugarcane yields (68.46 MT per hectare), sucrose recovery (11.31 percent), and factory yield (7.74 MT sugar per hectare) are all ahead of last year's (table 12). The relatively strong production this year ensures

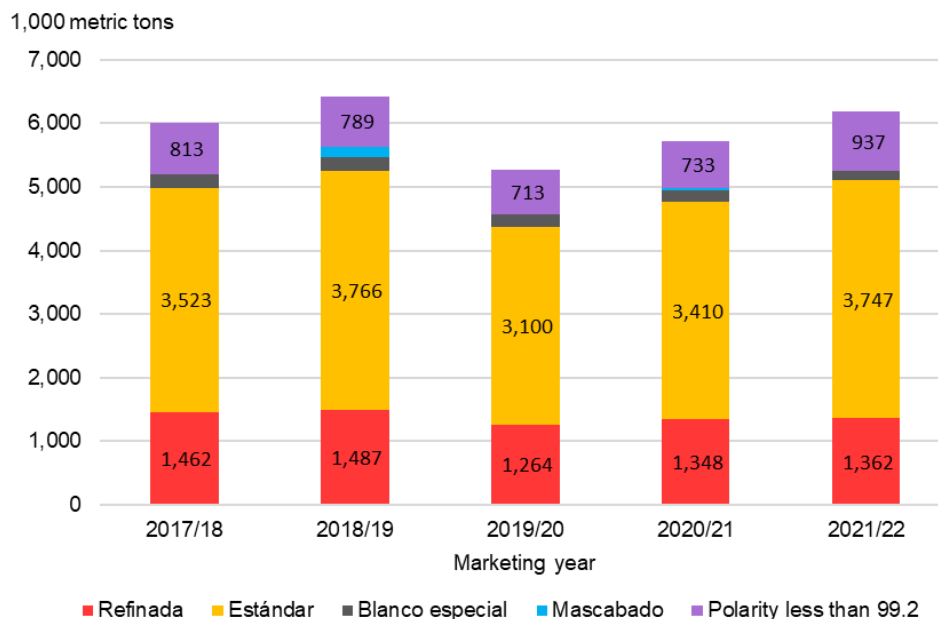
adequate supplies to meet the USDA requests for additional raw sugar supplies of both less than 99.2 and 99.5 polarity. Through week 41, 937,000 MT of less-than-99.2-polarity sugar were produced, corresponding to 15 percent of total cumulative Mexican sugar production (figure 16). This amount would be the largest in the last 5 years and up 204,645 MT from last year. Estándar (standard) sugar, which is the most-used sugar in Mexico, comprised most of the Mexican sugar production. To date, 3.747 million MT (61 percent of Mexico’s total sugar production) of this sugar type has been produced compared with 3.410 million MT (60 percent) at the same time last year.

Table 12: Mexican sugar production as of week 41, 2020/21 and 2021/22

	As of week 41		Difference	
	2020/21	2021/22	Level	Percent
Area harvested (hectares)	788,608	798,253	9,645	1
Sugarcane processed (metric tons)	51,226,455	54,644,570	3,418,115	7
Sugarcane yield (metric tons per hectare)	64.96	68.46	3.50	5
Number of mills in operation	1	1	0	0
Extraction rate (percent)	11.15	11.31	0.16	1
Total factory yield (metric tons sugar per hectare)	7.24	7.74	0.50	7
Sugar production (metric tons)	5,709,950	6,182,091	472,141	8

Sources: USDA, Economic Research Service calculations using data from Mexico’s National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

Figure 16
Mexican sugar production, by type of sugar, as of week 41 1/



1/ Week 41 corresponds to final production in 2017/18 and 2018/19.

Source: Mexico’s National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

Mexican Exports to the U.S. Raised in 2021/22 and 2022/23

On July 1, the U.S. Department of Commerce, upon the request of USDA, increased Mexico's 2021/22 Export Limit by 135,000 STRV of raw sugar with a polarity of less than 99.5 degrees. As such, the 2021/22 Mexican exports to the U.S. are increased by the same amount in MT actual weight equivalent—116,000 (table 11). Correspondingly, exports to the rest of the world are residually lowered by the same amount. This is because non-U.S. exports are estimated based on the amount of available supplies in 2021/22 to fully satisfy domestic demand, the increased U.S. Export Limit, and to maintain 2.5 months of domestic use as ending stocks to carry the market between the beginning of the 2022/23 fiscal year in October and the beginning of harvest in November.

The U.S.-Mexico sugar suspension agreements provide a formula to generate the initial Mexican sugar access in 2022/23. First, U.S. ending stocks are estimated for the coming year based on 13.5 percent of total use. Then, all sources of supply other than Mexico (beginning stocks, production, and imports other than from Mexico) are added up. Taking the difference of the total of demand (which includes the estimated ending stocks) and all other sources of supply generates a residual which is termed U.S. Needs. This formula is calculated by the U.S. Department of Commerce (DOC) four times a year, based on *WASDE* reports published in July, September, December, and March.

Targeting a 13.5-percent stocks-to-use, DOC is expected to calculate the initial U.S. Needs for 2022/23 at 1.627 million MT (or 1.951 million STRV). However, given the current forecast for Mexican production, domestic demand, and a 2.5-months' worth of ending stocks, Mexico's exports to the U.S. in 2022/23 can only be raised by 370,000 MT to a maximum level of 1.503 million MT (1.756 million STRV), leaving zero exportable surplus to other countries (table 11).

Forecast for Sugar Deliveries Unchanged in 2021/22 and 2022/23

Sugar deliveries for human consumption in 2021/22 remained at 4.050 million MT (table 11). The outlook for the other delivery component—sugar destined for the *Industria Manufacturera, Maquiladora y de Servicios de Exportación* (IMMEX) program—is unchanged from last month at

497,000 MT (432,000 MT from domestic production and 65,000 MT from imports). Likewise, the 2021/22 consumption of high-fructose corn syrup (HFCS) stayed at 1.310 million MT, dry basis. The 2021/22 estimates for sugar and IMMEX deliveries are carried over in 2022/23, while HFCS is increased marginally to 1.317 million MT, dry basis.

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