



Sugar and Sweeteners Outlook

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U.S. Sugar Supplies Lowered on Reduced 2020/21 Imports

U.S. sugar production, deliveries, and imports are unchanged in 2021/22. Beginning and ending stocks are lowered consequent to a slight reduction for 2020/21 imports. For Mexico, 2020/21 production is lowered, but domestic use is unchanged. Stocks and exports to the United States are unchanged, while exports to other markets are residually lower to account for the reduction to supplies.

Global sugar production is projected higher in 2021/22 as a small reduction to Brazil's output is expected to be more than offset by larger production for Thailand and other key suppliers. The portion of Brazil's sugarcane crop being diverted into sugar is down slightly from the previous year, but still well above the previous two years. Dry conditions have limited the overall supplies of sugarcane. Global exports are projected at a record with larger shipments from other exporters, especially Thailand, more than offsetting reduced Brazilian exports. Brazil is still forecast as the world's leading supplier. Global consumption is projected to expand to a record, rebounding from the relatively weaker levels of the previous two years.

U.S. honey demand expanded in 2020, while production declined. Rising imports, mainly from Vietnam, Argentina, India, Brazil, and Ukraine, filled the gap between supply and use. China was the world's leading honey producer in 2019.

United States Outlook

Ending Stocks Lower on Smaller 2020/21 Imports

In USDA's June *World Agricultural Supply and Demand Estimates (WASDE)* report, U.S. supplies of sugar for 2021/22 total 13.717 million short tons, raw value (STRV), down 50,000 STRV from the May *WASDE* figure (table 1). Beginning stocks are lowered by 50,000 STRV based on a reduced estimate for 2020/21 imports for re-export. For 2021/22, production, imports, and deliveries are unchanged. Ending stocks are consequently projected 50,000 STRV lower at 1.452 million, with the implied stocks-to-use ratio adjusted to 11.84 percent.

Table 1: U.S. sugar: supply and use by fiscal year (Oct./Sept.), June 2021

Items	2019/20	2020/21 (forecast) May	2020/21 (forecast) June	2020/21 Monthly Change	2021/22 (forecast) May	2021/22 (forecast) June	2021/22 Monthly Change
	1,000 Short tons, raw value						
Beginning stocks	1,783	1,618	1,618		1,805	1,755	-50
Total production	8,149	9,299	9,299	0	9,310	9,310	0
Beet sugar	4,351	5,118	5,118	0	5,225	5,225	0
Cane sugar	3,798	4,181	4,181	0	4,085	4,085	0
Florida	2,106	2,100	2,100	0	2,100	2,100	0
Louisiana	1,566	1,949	1,949	0	1,850	1,850	0
Texas	126	132	132	0	135	135	0
Hawaii	0	0	0	0	0	0	0
Total imports	4,235	3,154	3,104	-50	2,652	2,652	0
Tariff-rate quota imports	2,152	1,673	1,673	0	1,387	1,387	0
Other program imports	432	300	250	-50	250	250	0
Non-program imports	1,651	1,181	1,181	0	1,015	1,015	0
Mexico	1,376	981	981	0	965	965	0
High-duty	275	200	200	0	50	50	0
Total supply	14,166	14,070	14,020	-50	13,767	13,717	-50
Total exports	61	35	35	0	35	35	0
Miscellaneous	74	0	0	0	0	0	0
Deliveries for domestic use	12,414	12,230	12,230	0	12,230	12,230	0
Transfer to sugar-containing products for exports under re-export program	78	80	80	0	80	80	0
Transfer to polyhydric alcohol, feed, other alcohol	20	25	25	0	25	25	0
Commodity Credit Corporation (CCC) sale for ethanol, other	0	0	0	0	0	0	0
Deliveries for domestic food and beverage use	12,316	12,125	12,125	0	12,125	12,125	0
Total use	12,549	12,265	12,265	0	12,265	12,265	0
Ending stocks	1,618	1,805	1,755	-50	1,502	1,452	-50
Private	1,618	1,805	1,755	-50	1,502	1,452	-50
Commodity Credit Corporation (CCC)	0	0	0	0	0	0	0
Stocks-to-use ratio (percent)	12.89	14.72	14.31	-0.41	12.25	11.84	-0.41

Source: USDA, Economic Research Service, *Sugar and Sweeteners Outlook*.

Cane Sugar Production Outlook Unchanged

Total cane sugar production for 2021/22 is unchanged at 4.085 million STRV. USDA's National Agricultural Statistics Service (NASS) reports that Louisiana sugarcane conditions as of June 13 are 3 percent excellent, 53 percent good, 36 percent fair, 8 percent poor, and 0 percent very poor. These ratings are slightly below last year and the 5-year average (table 2). The first processors' estimate of Louisiana's cane sugar production for 2021/22 of 1.891 million STRV was published in the May *Sweetener Market Data (SMD)* report, published by USDA's Farm Service Agency (FSA), and is slightly higher than the WASDE forecast of 1.850 million STRV.

Table 2: Crop conditions in Louisiana through June 13 1/

	2016	2017	2018	2019	2020	5-year average	2021
<i>Excellent</i>	21	19	8	10	22	16	3
<i>Good</i>	58	58	33	56	49	51	53
<i>Fair</i>	18	18	52	28	26	28	36
<i>Poor</i>	2	4	6	5	3	4	8
<i>Very Poor</i>	1	1	1	1	0	1	0
<i>Weighted condition index 2/</i>	396	390	341	369	390	377	351

1/ Week 23; 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.

Total cane sugar production for 2020/21 is also projected unchanged from last month. The processing season is already complete for Texas with output at approximately 132,000 STRV. Louisiana's processing season is also complete, but the fiscal year sugar production will depend on the early harvest of the 2021/22 crop, which typically begins in September. October-April cane sugar production for Louisiana is 1.904 million STRV. The full fiscal year projection in WASDE is 1.95 million, which assumes 46,000 STRV production in September 2021. Louisiana's cane sugar production in September 2020 was 70,000 STRV, well above the five-year average of 45,000. Sugarcane processing in Florida typically continues through April or May, but this year is expected to extend into June, which would be the latest on record (going back to 1992). Florida's sugar production October-April stands at 1.836 million STRV, while the full fiscal year estimate remains at 2.1 million STRV. The Florida processors' estimate in the May *SMD* was reduced from 2.102 million to 2.091 million STRV, narrowly different from the WASDE estimate.

Beet Sugar Production Outlook Also Unchanged

U.S. beet sugar production in 2021/22 is projected unchanged from last month at 5.225 million STRV (table 3). The sugarbeet crop is still forecast at 35.14 million short tons with area

harvested estimated at 1.144 million acres based on the NASS area planted figure and a typical ratio of acres harvested/planted. The July WASDE figures will incorporate the first official NASS projection for area harvested. Yield is currently projected at 30.71 short tons/acre, which nearly matches the recent 5-year average.

Table 3: Beet sugar production projection calculation, 2020/21 and 2021/22

	2016/17	2017/18	2018/19	2019/20	2020/21	2020/21	2020/21	2021/22	2021/22
					April	May	June	May	June
Sugarbeet production (1,000 short tons) 1/	36,881	35,325	33,282	28,600	33,618	33,618	33,618	35,140	35,140
Sugarbeet shrink (percent)	8.26	7.31	5.17	5.34	6.58	6.58	6.58	6.58	6.58
Sugarbeet sliced (1,000 short tons)	33,834	32,742	31,561	27,072	31,405	31,405	31,405	32,826	32,826
Sugar extraction rate from slice (percent)	13.72	15.18	14.77	14.14	15.275	15.345	15.321	14.697	14.697
Sugar from beets slice (1,000 STRV) 2/	4,643	4,970	4,660	3,828	4,797	4,819	4,812	4,825	4,825
Sugar from molasses (1,000 STRV) 2/	352	368	352	341	360	360	360	360	360
Crop-year sugar production (1,000 STRV) 2/	4,995	5,338	5,012	4,169	5,157	5,179	5,172	5,185	5,185
August-September sugar production (1,000 STRV)	606	715	655	582	765	765	765	665	665
August-September sugar production of subsequent crop (1,000 STRV)	715	655	582	765	665	665	665	665	665
Sugar from imported beets (1,000 STRV) 3/	--	--	--	--	36	40	40	40	40
Fiscal year sugar production (1,000 STRV)	5,103	5,279	4,939	4,351	5,093	5,119	5,112	5,225	5,225

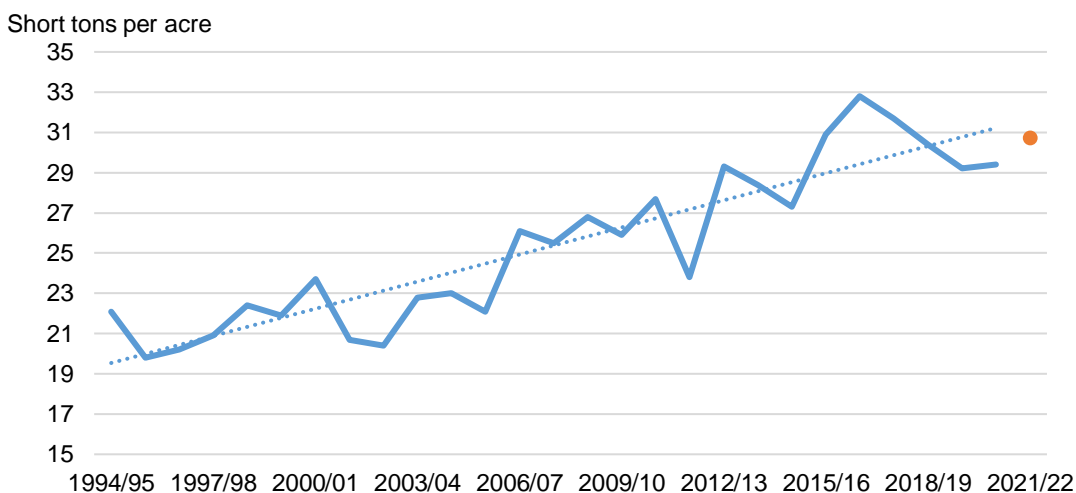
1/ USDA, National Agricultural Statistics Service for historical data. 2/ August-July basis. 3/ Sugar from imported beets split out for projections only, included in total once full crop-year slice is recorded. Sugar from imported beets is incorporated into total production in historical data.

Note: STRV = short tons, raw value.

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

Sugarbeet yields have trended upwards over the last few decades (figure 1). The long-term trend would suggest a yield closer to 31.67 short tons/acre. If this yield is used to calculate sugarbeet production, with all other considerations equal, then the total sugarbeet production for 2021/22 would be 36.227 million short tons and beet sugar production would be 5.374 million STRV.

**Figure 1
National sugarbeet yields, 1994/95-2021/22**

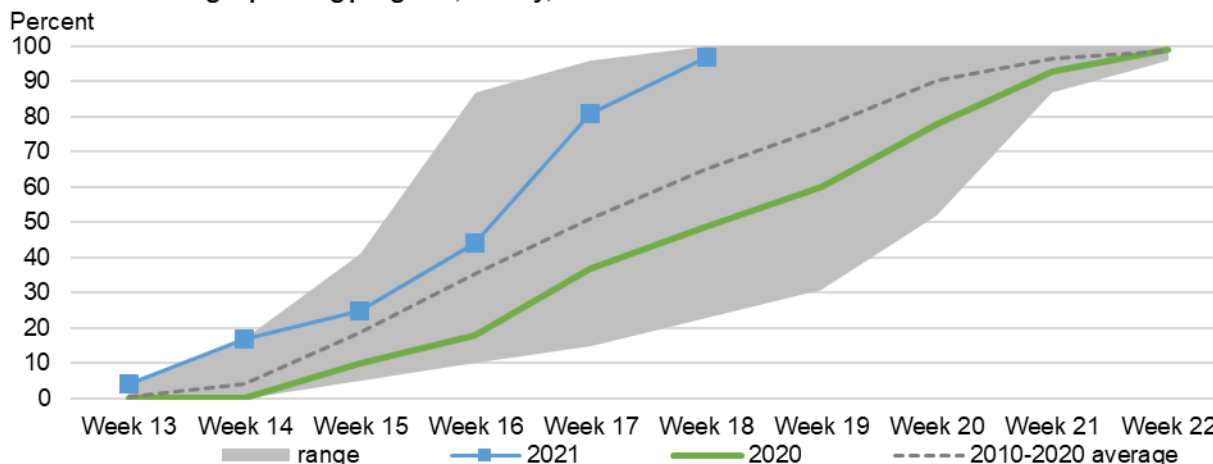


Note: Orange dot represents the current forecast for 2021/22.

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

Timely planting of sugarbeets is positively correlated with yields as it allows for better establishment of the plants before the key growing and development phases during the warmer summer months. As of May 9 (week 18), NASS reported that sugarbeets were 97 percent seeded in the 4 largest producing States (Idaho, Michigan, Minnesota, and North Dakota), well ahead of both last year and the recent 10-year average (figure 2).

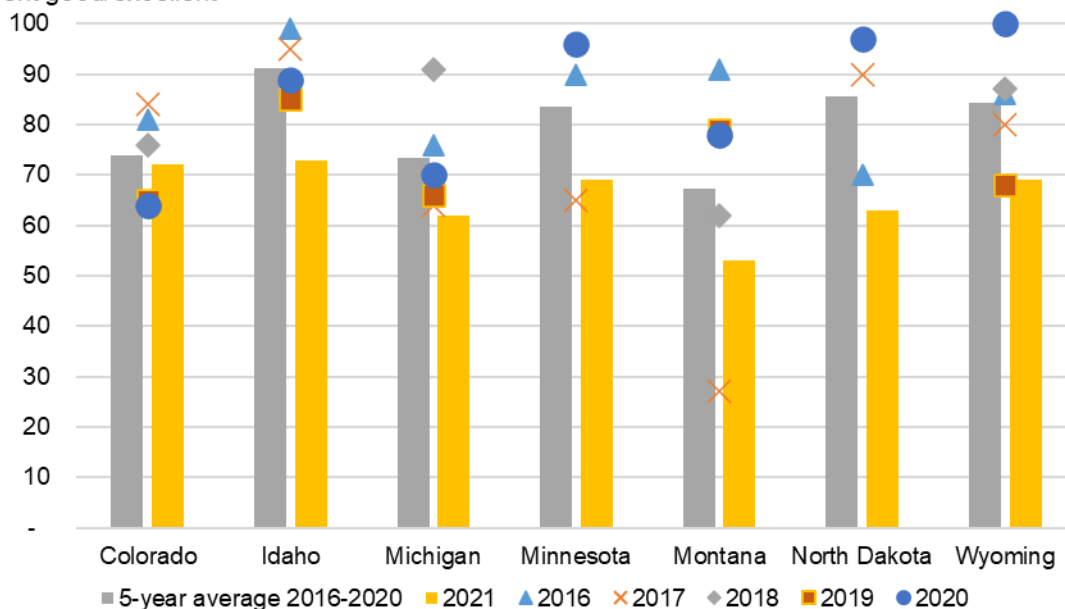
Figure 2
National beet sugar planting progress, weekly, 2010-2021



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

NASS reported crop conditions for some sugarbeet producing States through June 13, 2021 (week 23) indicate that conditions in several key States are slightly below the recent average (figure 3). Sugarbeet crops in Minnesota, the largest producing state, are reported to be 69 percent good/excellent, 27 percent fair, and 4 percent poor/very poor. Conditions in the second leading producing State, Idaho, are reportedly 73 percent good/excellent, 19 percent fair, and 8 percent poor/very poor. Conditions in North Dakota, the third leading producer, are reported to be 63 percent good/excellent, 31 percent fair, and 6 percent poor/very poor.

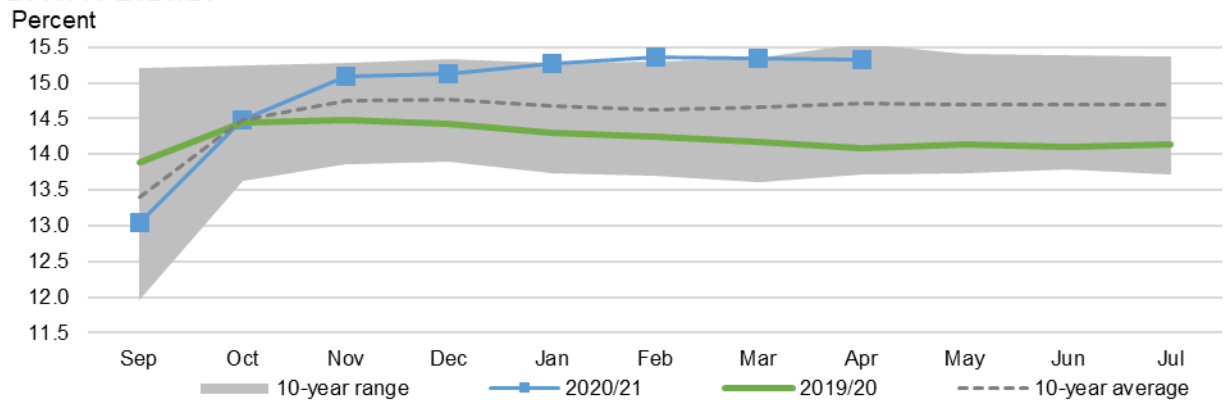
Figure 3
Sugarbeet conditions in major producing States as of June 13 1/
 Percent good/excellent



1/ Week 23, exact dates vary by year.
 Source: USDA, National Agricultural Statistics Service

Beet sugar production for 2020/21 is not revised this month. The cumulative marketing year extraction rate declined slightly in April from 15.345 percent to 15.321 percent but remains toward the upper end of the range observed over the last 10 years (figure 4). The projected extraction rate for the full sugarbeet marketing year (August-July) remains unchanged at 15.345 percent. Over the most recent 10 years, the August-April extraction rate has been larger than the full marketing year extraction rate by an average of only 0.015 percent. This suggests that the cumulative extraction rate through April tends to be a reasonably reliable indicator for the extraction rate over the full marketing year.

Figure 4
Cumulative sugar extraction rate, beet sugar produced per sugarbeet sliced, by crop year, 2010/11-2020/21



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

Unlike cane sugar, beet sugar is produced year-round, although production in the summer months is generally smaller. Geographically, sugarbeet production is spread over a wide variety of regions and harvest and processing seasons vary. For instance, sugarbeets in California are sliced starting around April through early August, whereas most other production zones only begin in August (or later). Year-round production of beet sugar is also a reflection of the processing method as sugarbeets are first processed into a product often called ‘thick juice’, which can be crystalized into sugar at a later date to optimize capacity. Also, the leftover molasses from the production of beet sugar can be reprocessed after the fact to extract even more sugar (this is known as de-sugared molasses). Beet sugar output for fiscal year 2020/21 is also dependent on early harvest and processing of the 2021/22 crop. The faster planting of the 2021 sugarbeet crop correlates with a higher possibility of a large August-September output, but this also depends on weather in the coming months and harvest conditions. August-September 2021 beet sugar production is assumed to be 665,000 STRV, in-line with the five-year average, but this needs to be monitored as the season progresses.

Deliveries Unchanged

Deliveries for 2021/22 are unchanged from the May estimate and even with the previous year, continuing the recent trend of relatively flat demand (figure 5). Significant uncertainty remains in the outlook for deliveries based on the ongoing economic recovery from the COVID-19 pandemic.

Total deliveries for the 2020/21 marketing year are unchanged from the May estimate at 12.125 million STRV, but down 1.5 percent from the final fiscal year deliveries for 2019/20. Total deliveries for food and beverage use during the period October-April are down 2.7 percent from the same time last year (table 4). Deliveries from reporting companies are down 0.3 percent with reduced deliveries by cane sugar refiners more than offsetting larger deliveries by beet sugar processors. Non-reporter (direct consumption) imports are down 25.3 percent from the same time last year.

Figure 5
Total U.S. sugar deliveries, fiscal and calendar year, 2008 to 2021

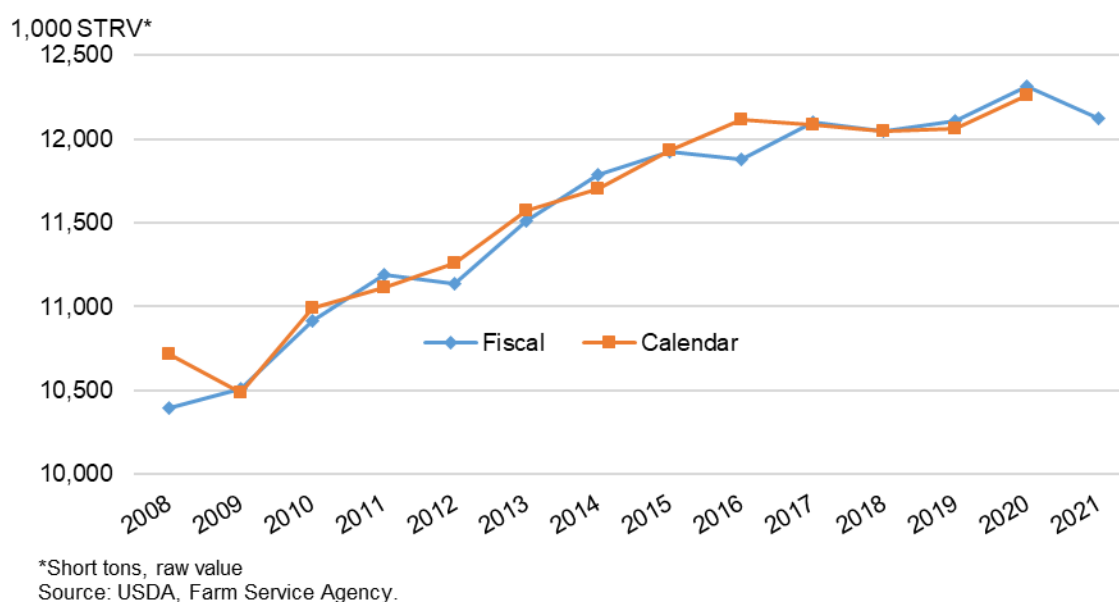


Table 4: Food and beverage deliveries, 2015/16 to 2020/21, October-April

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Annual change
	1,000 short tons, raw value						Percent
Beet sugar processors	2,548	3,032	3,060	2,886	2,696	2,836	5.2
Cane sugar refiners	3,692	3,473	3,426	3,611	3,765	3,605	-4.2
Total reporters	6,240	6,505	6,486	6,497	6,460	6,441	-0.3
Non-reporter, direct consumption	498	455	374	504	700	523	-25.3
Total deliveries	6,738	6,960	6,860	7,001	7,161	6,965	-2.7
Final fiscal year deliveries	11,881	12,102	12,048	12,106	12,316	12,125	-1.5

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

At 6.965 million STRV, October-April deliveries represent 57.4 percent of the projection for the full fiscal year 2020/21 (table 5). This compares with last year when those 7 months accounted for 58.1 percent of the fiscal year total deliveries. Over the past 10 years, October through April deliveries have accounted for between 55.3 percent and 58.1 percent of the full fiscal year

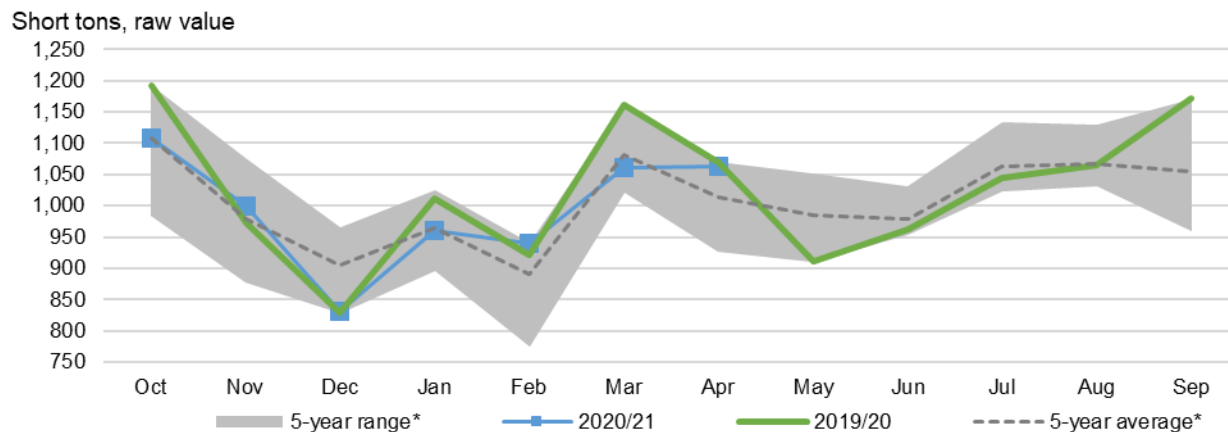
deliveries, with a weighted average of 56.7 percent. By this metric, the pace of deliveries this year is slightly ahead of normal for the current fiscal year projection. During the month of April, deliveries were in-line with the previous month, but well above the average pace for April (figure 6).

Table 5: Pace of U.S. deliveries, October-April

	1,000 short tons, raw value		Percent of total
	Oct-Apr	Fiscal year (FY)	
FY11	6,265	11,193	56.0
FY12	6,175	11,141	55.4
FY13	6,482	11,511	56.3
FY14	6,670	11,786	56.6
FY15	6,588	11,921	55.3
FY16	6,738	11,881	56.7
FY17	6,960	12,102	57.5
FY18	6,860	12,048	56.9
FY19	7,001	12,106	57.8
FY20	7,161	12,316	58.1
FY21 (forecast)	6,965	12,125	57.4
<i>10-year average</i>	<i>6,690</i>	<i>11,800</i>	<i>56.7</i>

Source: USDA, Farm Service Agency, *Sweetener Market Data*; USDA, Economic Research Service.

Figure 6
Total U.S. sugar deliveries, monthly, 2015/16-2020/21



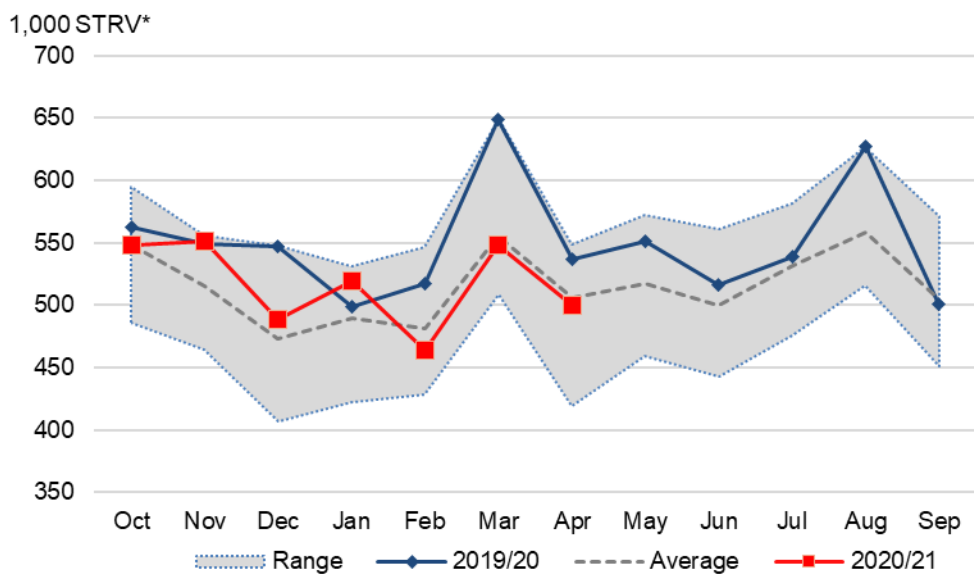
*2015/16 through 2019/20

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

Refiners' melt dropped during April, remaining in-line with the recent 10-year average (figure 7). Both raw stocks held by refiners (figure 8) and refined stocks held by refiners (figure 9) declined in April. Raw inventories are estimated slightly above the recent 10-year average, while refined

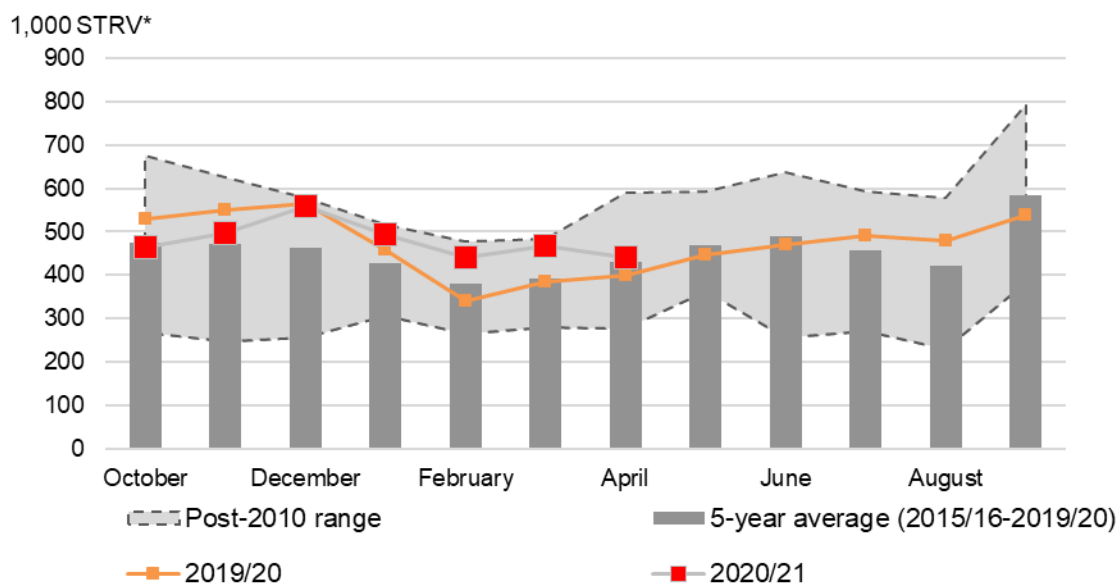
inventories are estimated below average. Sugar inventories held by sugarbeet processors are down in April, now holding close to a typical seasonal level (figure 10).

Figure 7
Sugarcane refiners' melt, monthly, 2010/11 to 2020/21



*Short tons, raw value
 Source: USDA, Farm Service Agency.

Figure 8
Sugarcane refiners' raw sugar inventories, monthly, 2015/16 to 2020/21



*Short tons, raw value
 Source: USDA, Farm Service Agency.

Figure 9
Sugarcane refiners' refined sugar inventories, monthly, 2015/16 to 2020/21

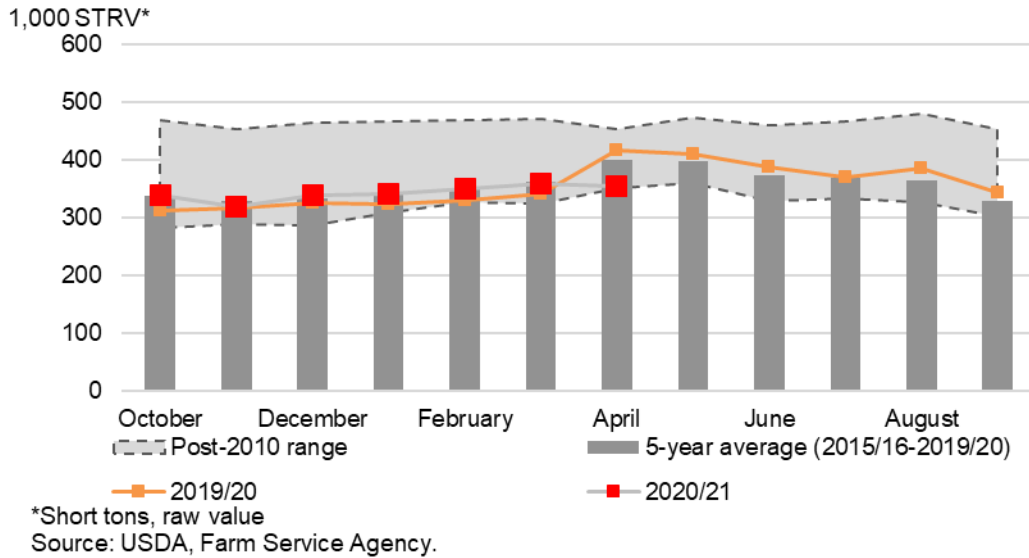
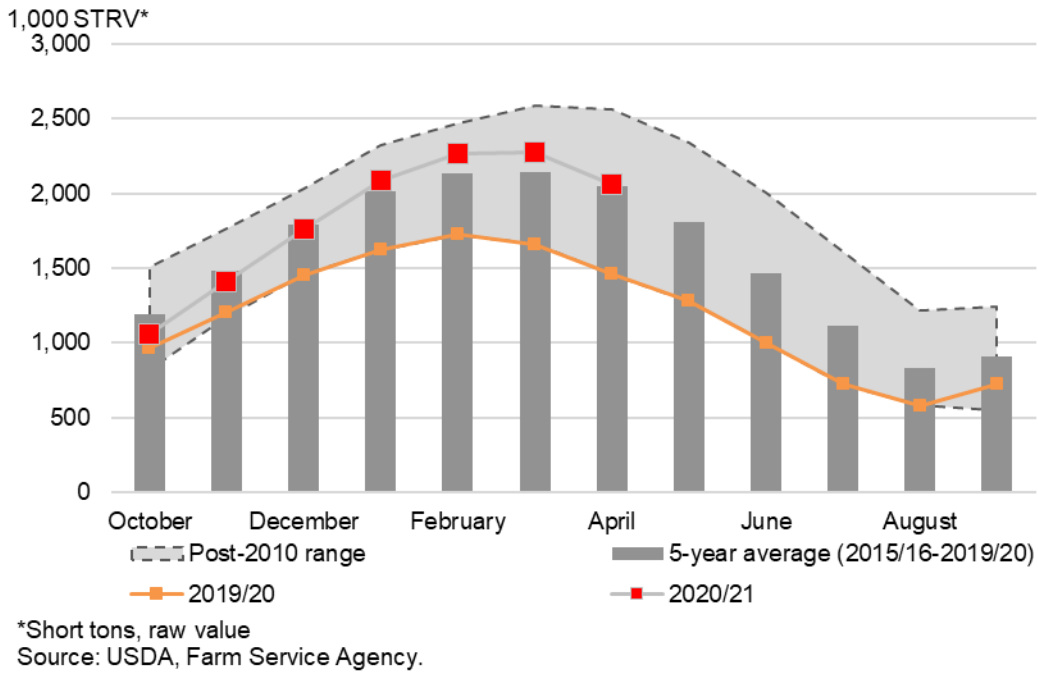


Figure 10
Sugarbeet processors' total sugar inventories, monthly, 2015/16 to 2020/21



2020/21 Imports Lowered Slightly

U.S. imports for 2021/22 are not changed this month. Total 2020/21 U.S. imports are lowered this month by 50,000 STRV because of a reduction in estimated imports of raw sugar by licensed refiners under the refined sugar re-export program, from 300,000 to 250,000 STRV. No changes are made to imports under tariff-rate quotas or under the high-tier duty.

Under the re-export program, refiners may import world-priced sugar on their license, if they export or transfer of an equivalent quantity within program time limits. A transfer means a recorded sale of program sugar to a licensed manufacturer of sugar-containing products for export, or a licensed manufacturer of polyhydric alcohol for domestic use.

Table 6 shows transactions by the 7 licensed refiners from fiscal years 2017 through 2021. For FY 2021, only the beginning balance for October 1, 2020 is known at this time. For the 4 fiscal years 2017 through 2020, program imports averaged 362,000 metric tons raw value (MTRV), exports averaged 46,000 MTRV, and transfers averaged 304,000 MTRV. An export or transfer is a subtraction from the previous balance on the license. Thus, if a refiner chooses to export or transfer first, the license balance becomes negative. If a refiner imports program sugar first, then the balance becomes positive, and a bond or letter of credit is required covering the total positive balance at 20 cents per pound. Since bonds cost money, most refiners prefer to maintain negative balances. The balance on October 1, 2020 of about 25,000 MTRV for the 7 refiners implies an average balance for each refiner of about 3,600 MTRV, the lowest level in many years.

A refiner with a small negative balance will be unable to import much program sugar without causing the license balance to go positive and incurring the cost of a bond. Conversely, a large negative balance provides room for significant imports while still avoiding the cost of a bond. Each month, refiners accumulate more credits by making exports and transfers, and at some point they will build up a sufficiently negative balance to import again without going positive.

In addition to monitoring their license balances, a factor that can heavily influence when refiners import program sugar is the spread between the U.S. and world raw sugar prices in the futures contracts over the coming year or beyond. A careful choice of when to lock in a spread in a particular futures period can mean a significant addition to the premium gained under the program.

Table 6: U.S. Sugar Re-Export Program refiners balances and transactions, fiscal years (October 1 - September 30)

	Refiner beginning balances 1/	Imports	Export credits	Transfers to SCP and Poly Licenses 2/
		<i>Metric tons raw value</i>		
FY 2017	-74,439	373,063	64,496	352,824
FY 2018	-118,696	291,570	69,568	252,351
FY 2019	-149,045	389,207	29,091	339,259
FY 2020	-128,189	392,271	19,616	269,930
FY 2021 3/	-25,465	226,796	N/A	314,476

N/A = data not available.

1/ A negative balance indicates that cumulative exports and transfers exceed cumulative imports. A positive balance indicates that cumulative imports exceed cumulative exports and transfers.

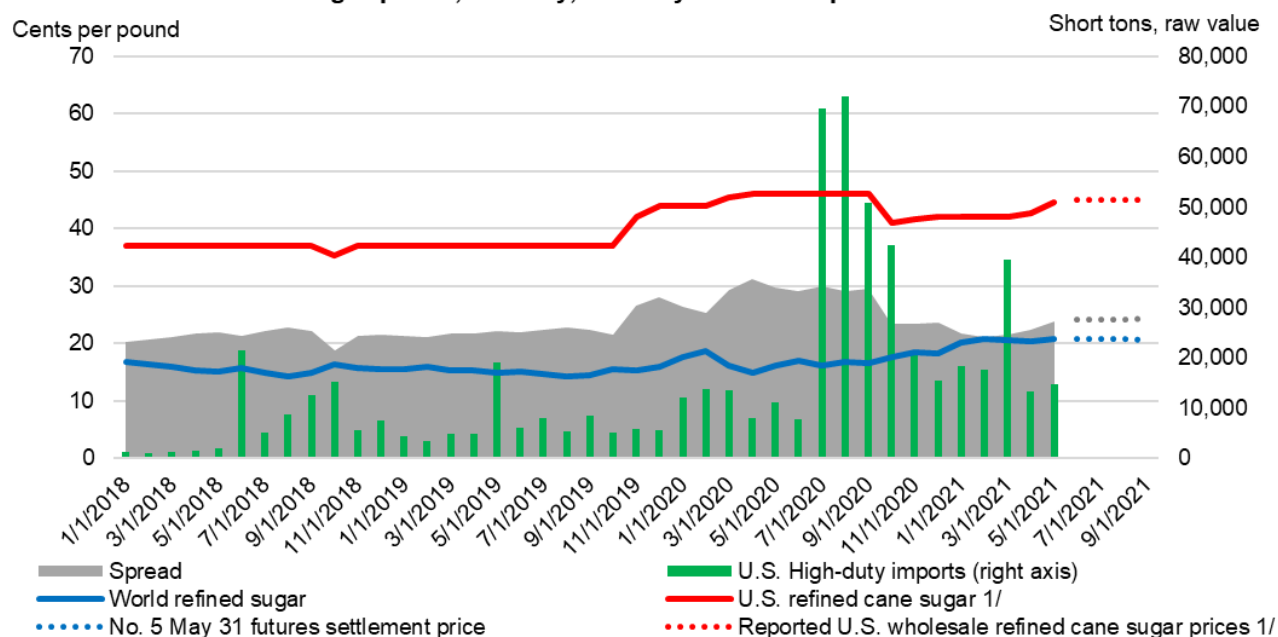
2/ SCP: Sugar-containing products; Poly: polyhydric alcohol.

3/ FY 2021 imports and transfers are forecasts.

Source: USDA, Foreign Agricultural Service.

The spread between the U.S. refined cane sugar price (Northeast) and the world refined sugar price rose in May to 23.74 cents per pound (figure 11), up from 22 cents in April. Note that for raw sugar, the tariff is set at 33.87 cents per kilogram or 15.4 cents per pound; for refined sugar, it is set at 35.74 cents per kilogram or 16.21 cents per pound. Depending upon the country of origin, the cost of freight and associated logistics can be as low as 2-4 cents per pound for raw sugar and 4-6 cents per pound for refined sugar. Theoretically at least, the spread of domestic prices above world prices appears to be close to levels at which high-tier imports could be competitive.

Figure 11
U.S. and world refined sugar prices, monthly, January 2018 to September 2021



1/ Northeast refined cane sugar

Source: USDA, Economic Research Service; USDA, Foreign Agricultural Service.

Mexico Outlook

Production Reduced for 2020/21; Steady Outlook for 2021/22

USDA's June 2021 *World Agricultural Supply and Demand Estimates (WASDE)* publication forecasts Mexico's 2020/21 sugar production at 5.7 million metric tons (MT), actual value, down 125,000 MT from last month's estimate (table 7) as the early onset of rains in Veracruz, Tabasco, and Tamaulipas is reported to have caused an early end to the cane harvest in those States. This reduction is also supported by low sugarcane yields. The forecast for Mexico's 2021/22 sugar production remains at 5.809 million MT.

As of June 5, 2021, Mexico's total sugar produced is 5.681 million MT, up from 5.189 million at the same point last year, but down from the same point in 2017/18 and 2018/19 (figure 12). 782,400 hectares have been harvested to-date, which is higher than the same point last year and in 2017/18, but below 2018/19. The cumulative sugarcane yield to-date has declined precipitously in recent weeks and is now only slightly above the same point last year (figure 13). While sugarcane yields are substantially behind 2017/18 and 2018/19, the cumulative extraction rate to-date remains relatively comparable to those years and well above 2019/20 (figure 14). Note that as the season progresses, sugarcane yields tend to decline while extraction rates generally rise. Most of Mexico's sugar produced to-date has been estándar (standard) sugar, the most used sugar in Mexico. Through June 5, this type of sugar represents 60 percent of Mexico's cumulative sugar production, compared with 54 percent at the same time last year and 66 percent in the previous year (figure 15). Mexico's production of low polarity sugar appears to be sufficient to fulfill export allocations to the U.S. market.

Deliveries for both sugar and high-fructose corn syrup are unchanged this month (discussed in more detail in next section). Exports to the United States are unchanged, while exports to the rest of the world are projected residually lower, accounting for the production change. Mexico's stocks for both 2020/21 and 2021/22 are set at 910,000, roughly equivalent to 2.5 months of domestic consumption. This is the target Mexican authorities use to monitor and manage the domestic sugar program.

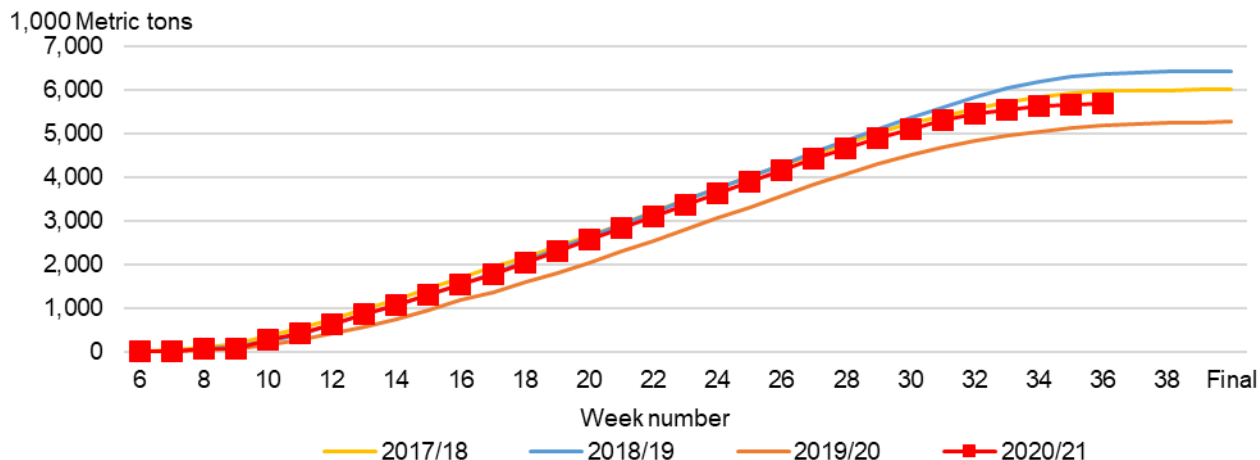
Table 7: Mexico sugar: supply and use by fiscal year (Oct./Sept.), June 2021

Items	2019/20	2020/21	2020/21	2020/21	2021/22	2021/22	2021/22
		(forecast)	(forecast)	Monthly	(forecast)	(forecast)	Yearly
		May	June	Change	May	June	Change
1,000 metric tons, actual weight							
Beginning stocks	1,169	858	858	0	910	910	0
Production	5,278	5,825	5,700	-125	5,809	5,809	0
Imports	77	105	105	0	85	85	0
Imports for consumption	55	40	40	0	20	20	0
Imports for sugar-containing product exports, IMMEX 1/, other	23	65	65	0	65	65	0
Total supply	6,524	6,788	6,663	-125	6,804	6,804	0
Disappearance							
Human consumption	4,101	3,963	3,963	0	3,955	3,955	0
For sugar-containing product exports (IMMEX)	352	415	415	0	415	415	0
Other deliveries and end-of-year statistical adjustment	1	0	0	0	0	0	0
Total	4,455	4,378	4,378	0	4,370	4,370	0
Exports	1,212	1,499	1,374	-125	1,524	1,524	0
Exports to the United States and Puerto Rico	1,177	839	839	0	826	826	0
Exports to other countries	35	660	535	-125	698	698	0
Total use	5,667	5,877	5,752	-125	5,894	5,894	0
Ending stocks	858	910	910	0	910	910	0
1,000 metric tons, raw value							
Beginning stocks	1,239	909	909	0	965	965	0
Production	5,595	6,175	6,042	-133	6,158	6,158	0
Imports	82	111	111	0	90	90	0
Imports for consumption	58	42	42	0	21	21	0
Imports for sugar-containing product exports (IMMEX)	24	69	69	0	69	69	0
Total supply	6,916	7,195	7,062	-133	7,213	7,213	0
Disappearance							
Human consumption	4,347	4,201	4,201	0	4,192	4,192	0
For sugar-containing product exports (IMMEX)	373	440	440	0	440	440	0
Other deliveries and end-of-year statistical adjustment	1	0	0	0	0	0	0
Total	4,722	4,641	4,641	0	4,632	4,632	0
Exports	1,285	1,589	1,457	-133	1,615	1,615	0
Exports to the United States and Puerto Rico	1,248	890	890	0	875	875	0
Exports to other countries	37	699	567	-133	740	740	0
Total use	6,007	6,230	6,097	-133	6,248	6,248	0
Ending stocks	909	965	965	0	965	965	0
Stocks-to-human consumption (percent)	20.9	23.0	23.0	0.0	23.0	23.0	0
Stocks-to-use (percent)	15.1	15.5	15.8	0.3	15.4	15.4	0
High-fructose corn syrup (HFCS) consumption (dry weight)	1,388	1,325	1,325	0	1,300	1,300	0

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

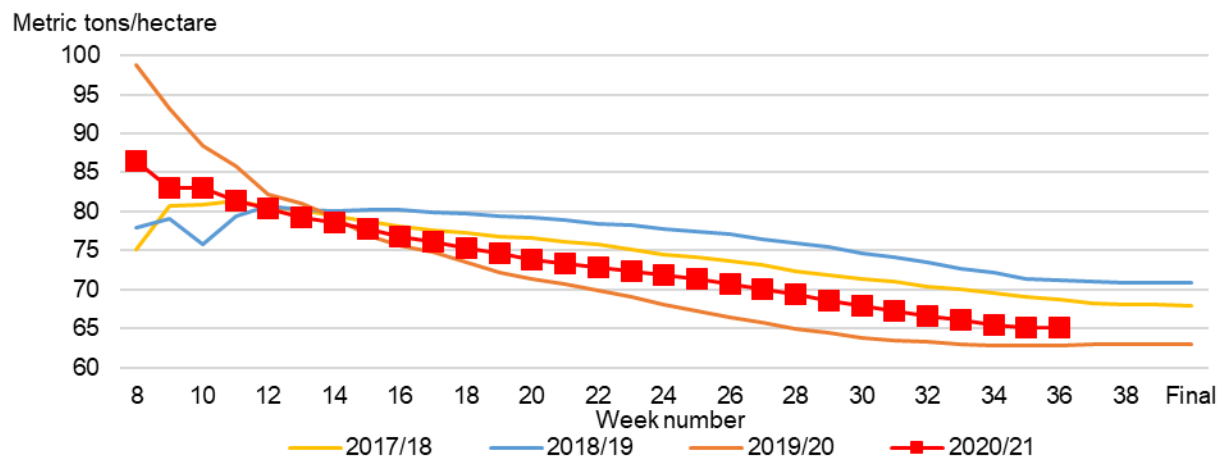
Sources: USDA, World Agricultural Outlook Board; USDA, Economic Research Service; Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

Figure 12
Mexico cumulative sugar production, by week



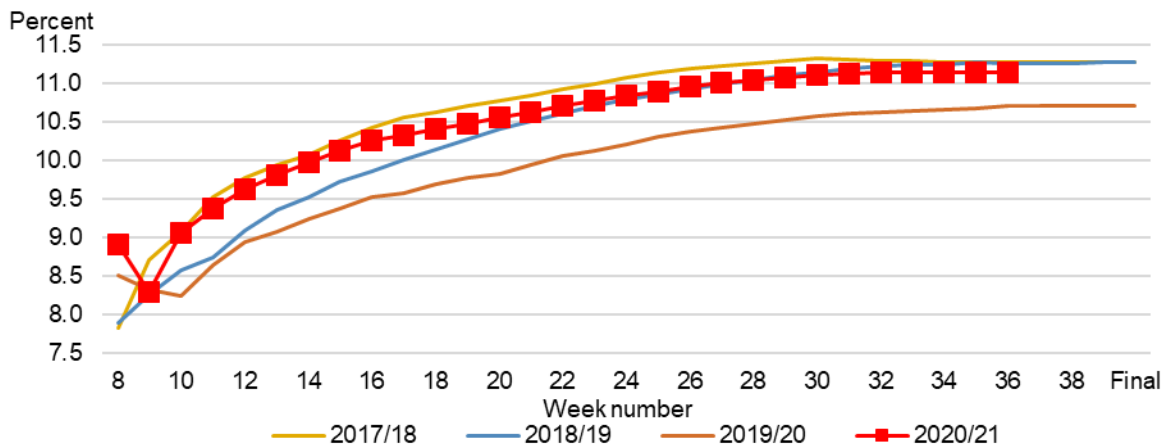
Source: Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

Figure 13
Mexico cumulative sugarcane yields, by week



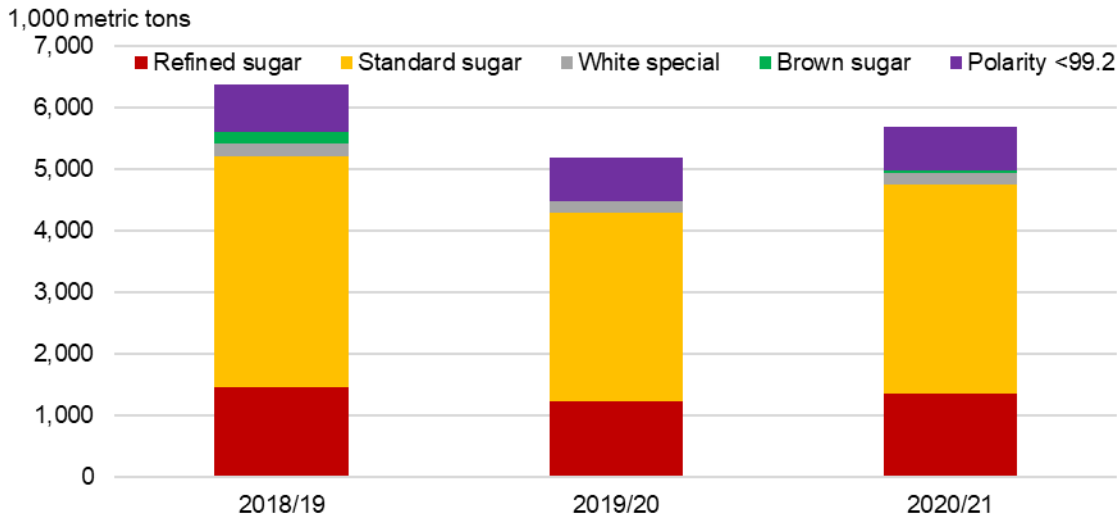
Source: Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

Figure 14
Mexico cumulative sugar extraction rate, by week



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

Figure 15
Mexico sugar production, by type of sugar, through week 36*



*Dates of comparison are June 5, 2021; June 6, 2020; and June 8, 2019.
 Source: Mexico's National Committee for the Sustainable Development of Sugarcane (CONADESUCA).

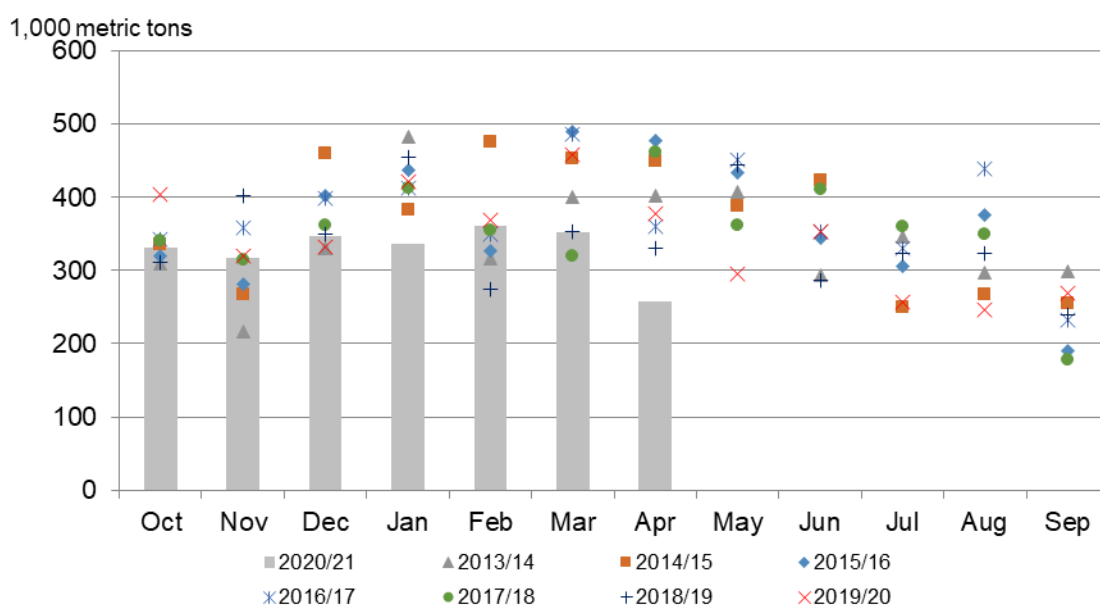
Deliveries Unchanged

The monthly pace of sugar deliveries in 2020/21 has been consistently slower than in recent years (figure 16). Deliveries during April declined substantially and were notably lower than previous years. Through 7 months of data, sugar deliveries totaled 2.303 million MT, 58.1 percent of the full year projection of 3.963 million MT (table 8). Over the last decade, these 7 months typically account for about 61.1 percent of the fiscal year total. Sugar deliveries are unchanged this month despite the slow pace to-date. Reports have emerged of producers blockading warehouses to keep domestic prices from declining. This development likely explains the slow April deliveries, at least partially; if this issue is resolved, it could result in accelerated deliveries in subsequent months.

Deliveries of high-fructose corn syrup (HFCS) are projected unchanged this month. Deliveries through 7 months stand at 764,000 MT, dry basis, which represents 57.7 percent of the full year projection of 1.325 million. Over the last 10 years, deliveries through 7 months of data have represented an average of 56.1 percent of the deliveries for the full year. HFCS deliveries through 7 months of data (October through April) tend to be a reliable indicator of the deliveries total for the full fiscal year, as indicated by an R-squared of 0.895 (figure 17). This contrasts with sugar, where the correlation is only 0.5028, indicating that pace analysis is less significant in determining the expected deliveries for a fiscal year (figure 18). The deliveries pace for sugar tends to be more obscured by month-to-month variability.

With sweetener consumption coming under increased public scrutiny, product reformulations are driving a shift towards lower consumption of both products. Front-of-pack labeling laws instituted in October 2020 have resulted in soda companies reducing their use of HFCS. Such product formulation changes are part of a multi-year shift to reduce sweetener consumption. At both the State and Federal level, a variety of measures are now in place to curb sweetener consumption based on its perceived connection to high levels of obesity. Both per capita and total sweetener consumption have trended downward since 2016/17 and this is expected to continue in 2021/22 (figure 19). Sugar consumption in 2021/22 is still projected at 3.955 million MT, while HFCS is forecast at to 1.3 million MT.

Figure 16
Mexican sugar deliveries for consumption, monthly, 2013/14 to 2020/21



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

Table 8: Pace of Mexico sweetener deliveries through first 7 months of fiscal year

	Sugar, 1,000 metric tons (MT)			High-fructose corn syrup, 1,000 MT, dry weight		
	Oct-Apr	Fiscal year	Percent of total	Oct-Apr	Fiscal year	Percent of total
FY11	2,440	3,950	61.8	894	1,635	54.7
FY12	2,447	4,135	59.2	977	1,721	56.8
FY13	2,436	4,287	56.8	922	1,567	58.8
FY14	2,457	4,098	60.0	773	1,372	56.3
FY15	2,824	4,408	64.1	806	1,444	55.8
FY16	2,737	4,387	62.4	805	1,482	54.3
FY17	2,710	4,515	60.0	830	1,522	54.5
FY18	2,567	4,228	60.7	903	1,593	56.7
FY19	2,475	4,092	60.5	860	1,528	56.2
FY20	2,682	4,101	65.4	795	1,388	57.3
FY21 (forecast)	2,303	3,963	58.1	764	1,325	57.7
10-year average	2,577	4,220	61.1	856	1,525	56.1

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

Figure 17

Mexico HFCS deliveries, fiscal year relative to first 7 months, 2011-20

Fiscal year deliveries, 1,000 metric tons

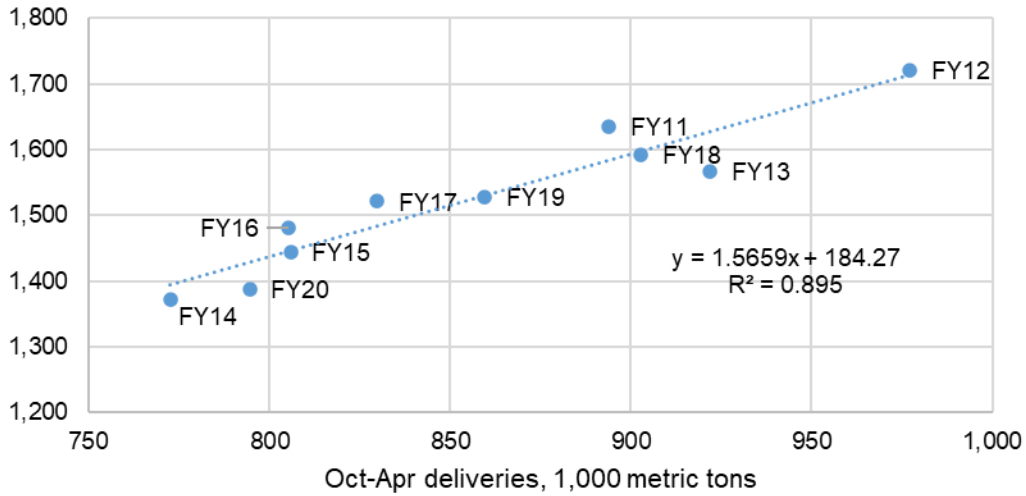


Figure 18

Mexico sugar deliveries, fiscal year relative to first 7 months, 2011-20

Fiscal year deliveries, 1,000 metric tons

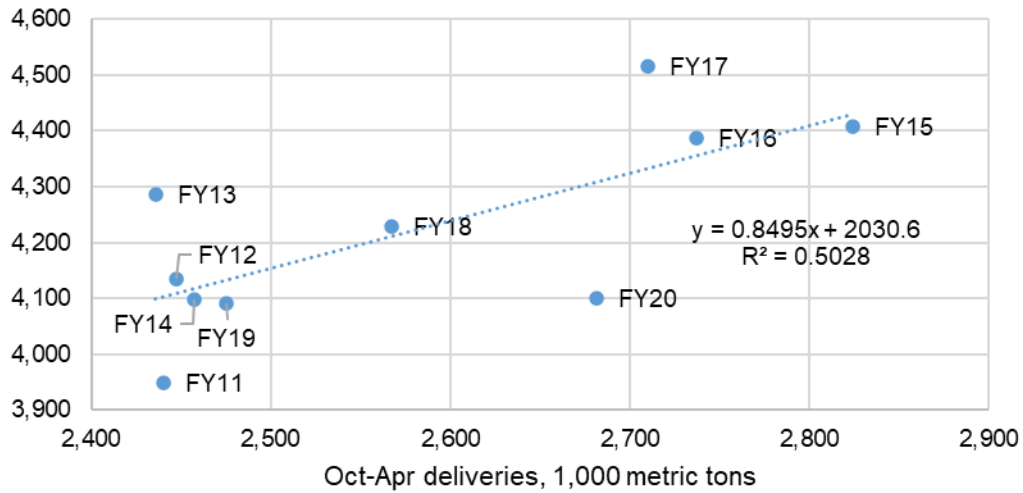
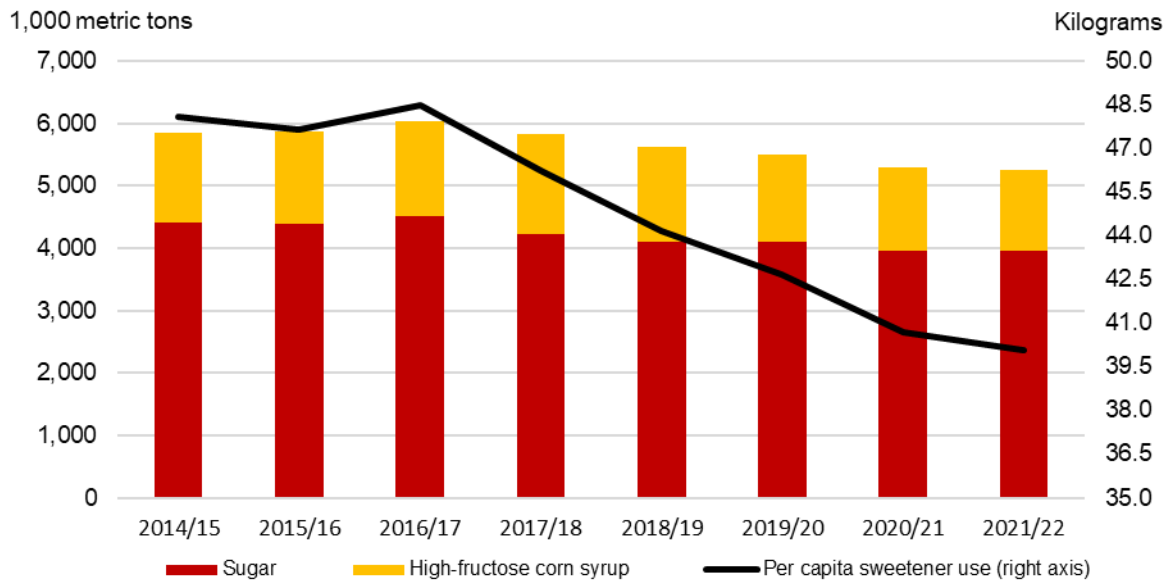


Figure 19
Mexico sweetener consumption by year



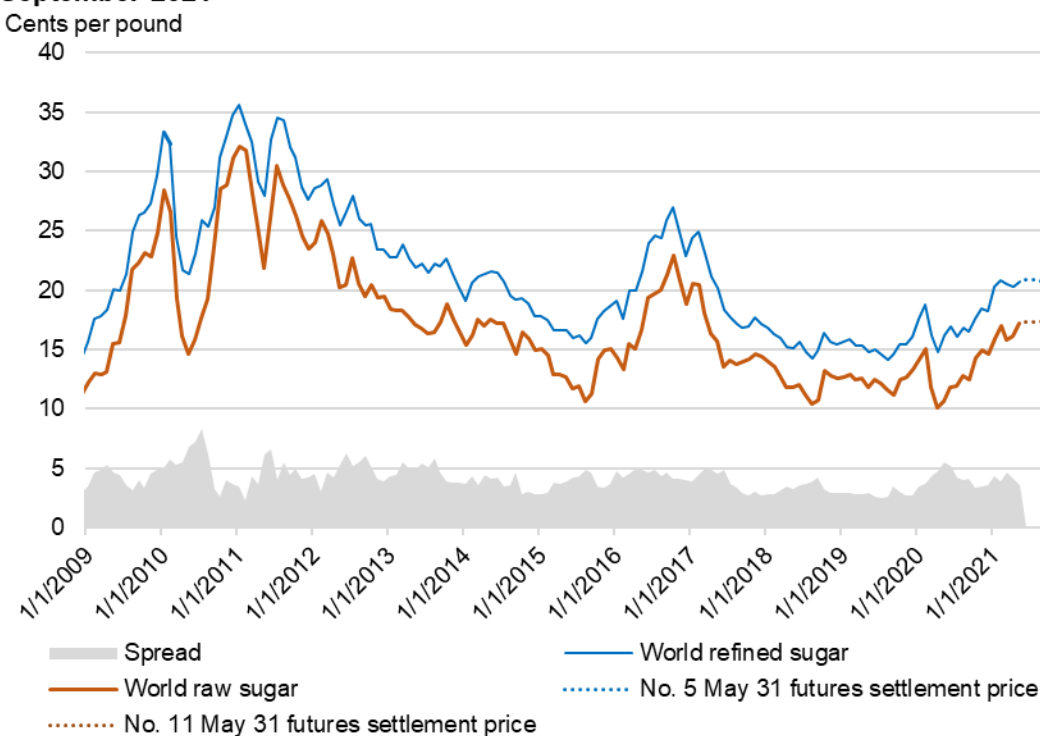
Source: USDA, World Agricultural Outlook Board.

Global Sugar Outlook

World Sugar Futures Prices Tick Up in Recent Months

World sugar prices, as represented by the price of futures contracts for both raw sugar and refined sugar, have trended upward for much of the last year (figure 20). Concerns over dryness in Brazil's sugarcane areas has been a major factor supporting these prices in recent months. Nearby futures for global raw sugar (#11 contract) during May averaged 17.2 cents per pound, up 71 percent from the low reached in April of last year. Similarly, nearby refined sugar (#5 contract) averaged 20.76 cents per pound, up 40 percent from April of last year. Price levels in recent months have been the highest in about 4 years but are still significantly below the levels of earlier years when price volatility was more significant. Additionally, even though concerns remain, the global sugar market is reasonably well-supplied, with 2021/22 production expected to exceed consumption once again according to USDA estimates.

Figure 20
World raw and refined sugar prices, monthly, January 2009 to September 2021



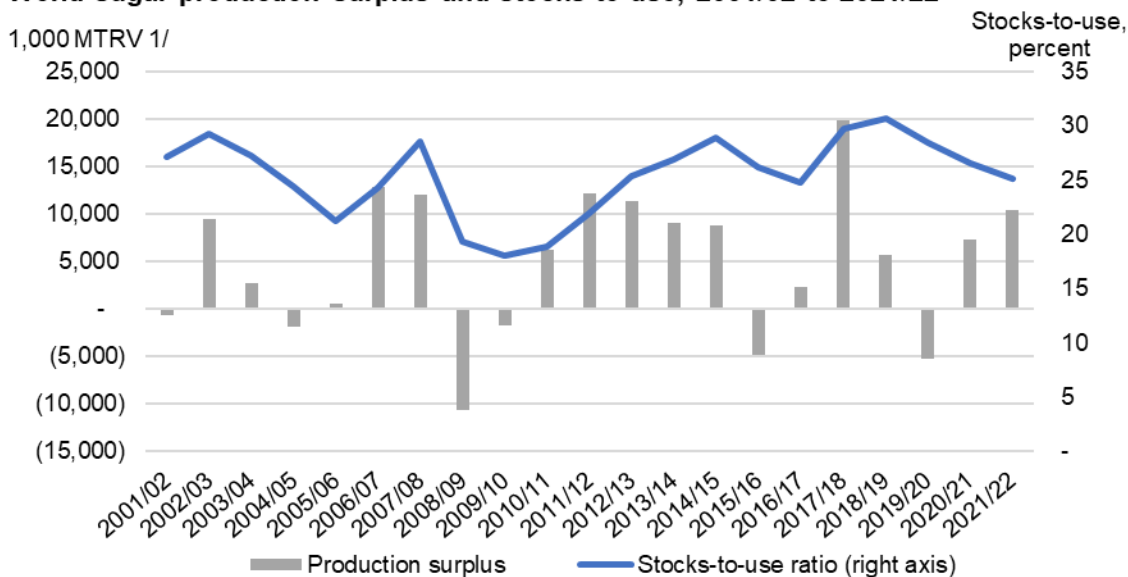
Source: USDA, Economic Research Service.

Global Production Surplus Projected in 2021/22

On May 25, 2021, the Foreign Agricultural Service (FAS) released the semi-annual *Sugar: World Markets and Trade*, updating USDA world sugar market estimates for 2020/21 and providing initial forecasts for 2021/22. The update is based on information and reports provided by FAS Attachés around the globe. The reports from the Attachés can be found through the Global Agricultural Information Network (GAIN) on the FAS website.

The global sugar market is forecast to have a production surplus of more than 10 million metric tons, raw value (MTRV) in 2021/22 (figure 21). The surplus is the result of a 3-percent increase in global production, which more than offsets a 2-percent rise in total disappearance. On the other hand, global stocks are projected down 4 percent to 44 million tons based on the difference between the sum of global export and import forecasts. Trade figures do not line up perfectly partly because of differences in the timing of marketing years.

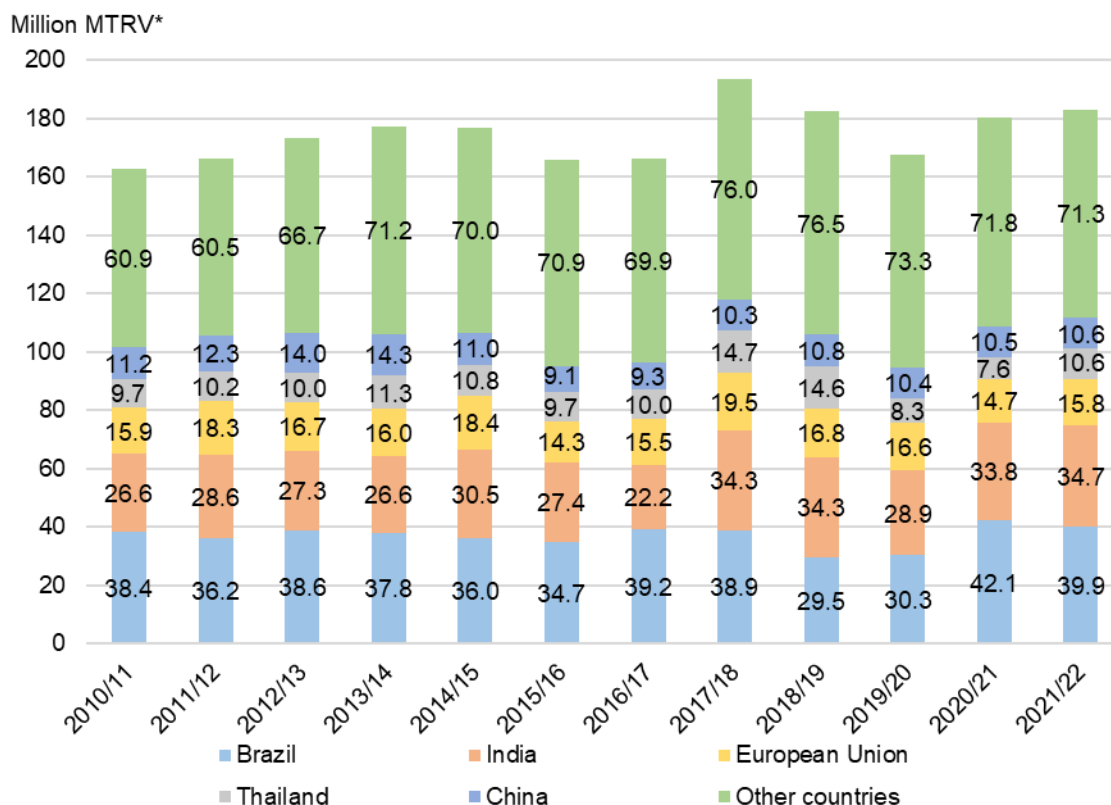
Figure 21
World sugar production surplus and stocks-to-use, 2001/02 to 2021/22



1/ Metric tons, raw value.
Source: USDA, Foreign Agricultural Service.

The production increase is because of larger crops for Thailand, the European Union, and India more than offsetting a reduction for Brazil (figure 22). China's sugar output is also forecast up slightly, while production for the rest of the world is collectively down. Even with its sugar production down 5 percent from the previous year, Brazil is still projected as the world's leading sugar producer for the third consecutive year.

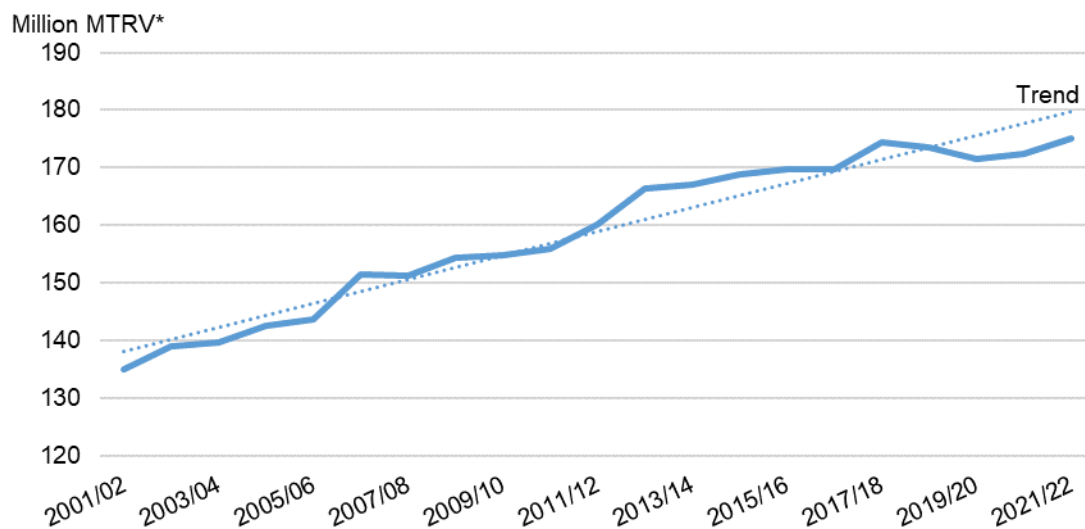
Figure 22
World sugar production, 2010/11 to 2021/22



*Metric tons, raw value
 Source: USDA, Foreign Agricultural Service.

Globally total disappearance (consumption) is up 1.5 percent from last year to a record 175 million MT (figure 23). Year-to-year growth of 2.6 million MTRV is in-line with the long-term trend after consumption growth had been negative in 2019/20 and only slightly positive in 2020/21. The largest drivers of the year-to-year growth are India, China, the Philippines, and the European Union. Sugar consumption in India is projected up 1.8 percent to a record 28.5 million MT, assuming that consumption strengthens as the economy emerges from the COVID-19 pandemic. Similarly, China’s consumption is forecast up 1.9 percent to 15.8 million as demand is expected to rebound with economic recovery. The Philippines’ consumption is projected up 10 percent to 2.2 million MT, which is still down from the level seen in 2019/20. Sugar consumption in the Philippines was sharply lower in 2020/21 based on the economic impacts of the pandemic. The expectation remains that consumption will rebound substantially once the economy moves past the COVID-19 pandemic. Consumption for the European Union is forecast up 150,000 MT, or 0.9 percent, to 16.75 million MT, but remains below the levels of 2017/18 and 2018/19.

Figure 23
Global sugar consumption (total disappearance), 2001/02-2021/22

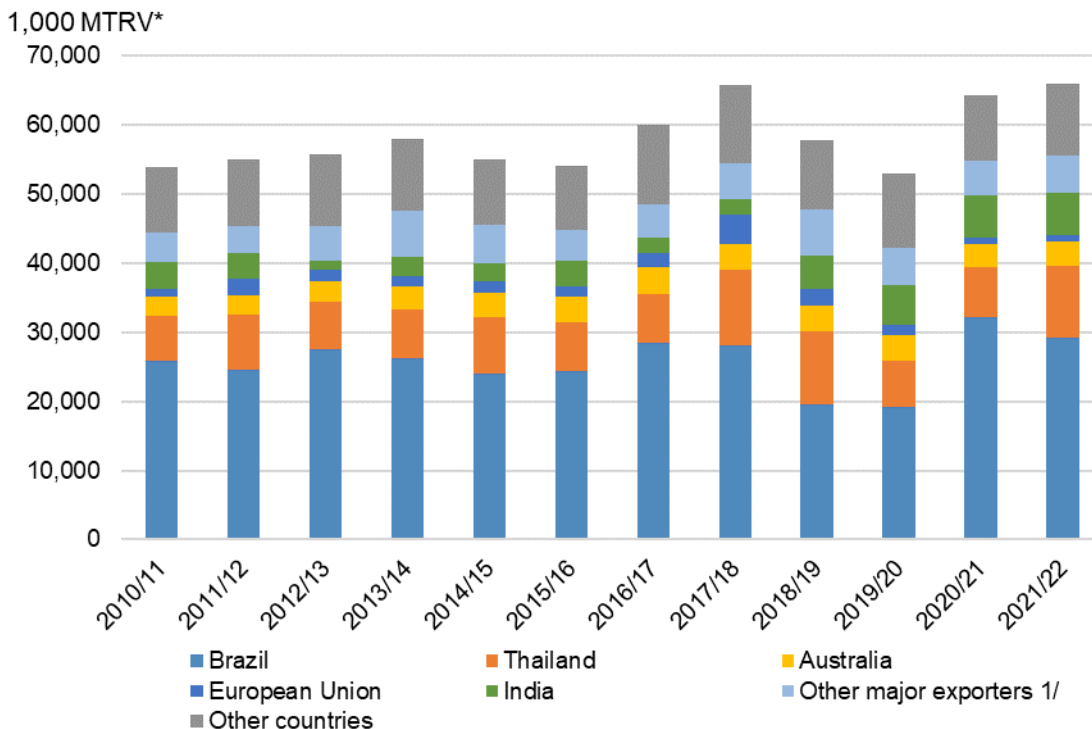


*MTRV: Metric tons, raw value
 Source: USDA, Foreign Agricultural Service

Global Exports Projected at Record High

Global exports are projected up 3 percent to a record 66 million MT, with Brazil once again forecast as the world's leading supplier (figure 24). Brazil's exports are projected down 9 percent to 29 million MT based on reduced supplies, but its forecast shipments would still be the 2nd highest on record. Higher shipments from Thailand and other suppliers are expected to more than offset the smaller exports from Brazil.

Figure 24
World sugar exports, 2010/11 to 2021/22



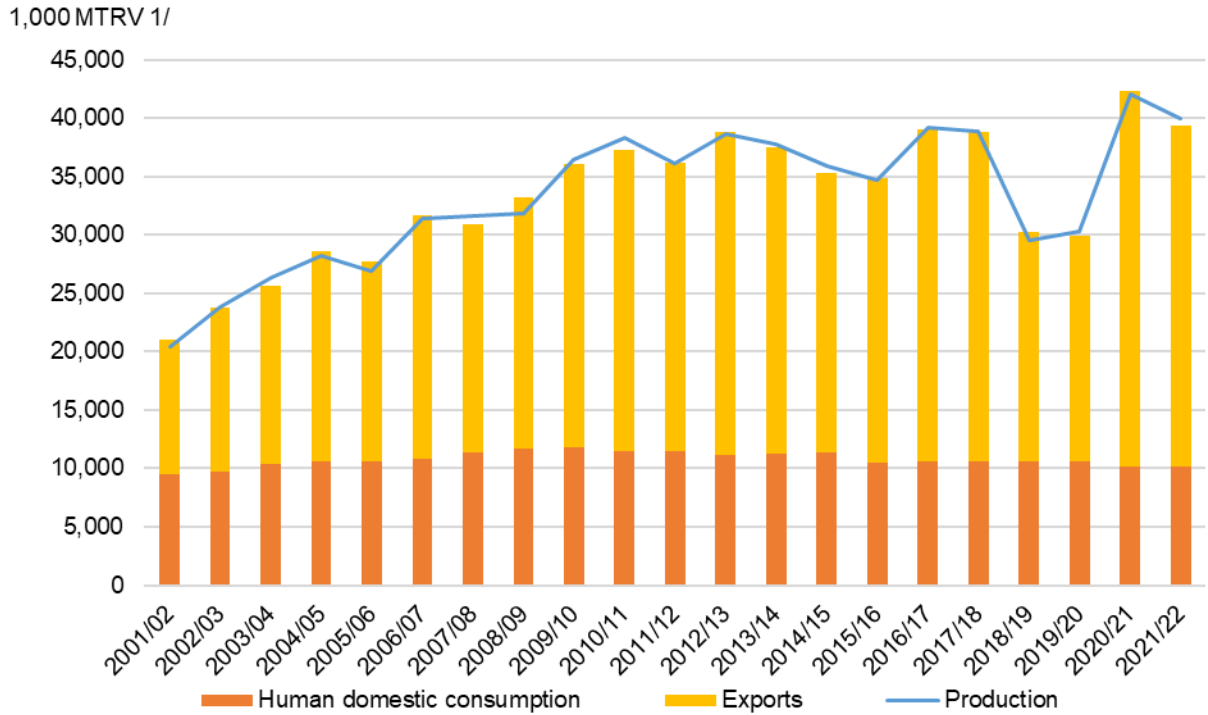
*Metric tons, raw value.

1/ Includes: Guatemala, Mexico, Ukraine, Colombia, and South Africa.

Source: USDA, Foreign Agricultural Service.

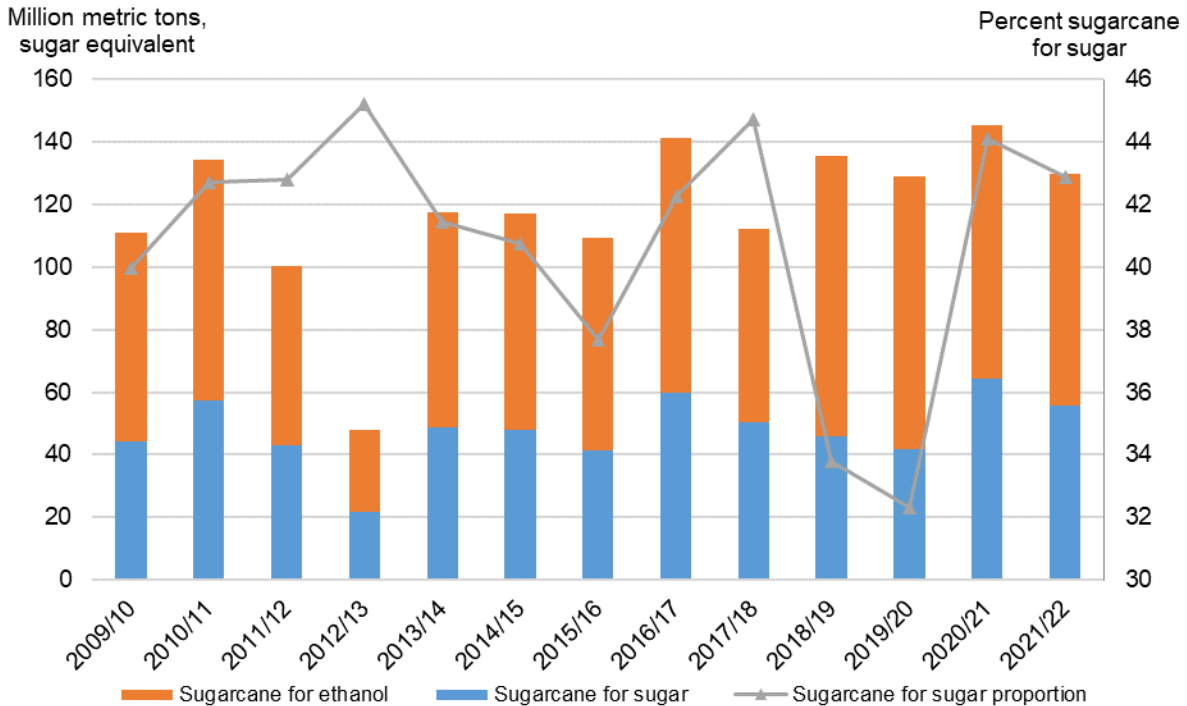
Even with production and exports down slightly in 2021/22 (figure 25), Brazil is still forecast to lead the world in both categories. Brazil's production ramped up in 2020/21 with an increased share of its domestic sugarcane being diverted into sugar, at the expense of ethanol (figure 26). Those larger supplies enabled Brazil to export more to the world, making up for shortfalls in other areas such as Thailand and the European Union. While fuel prices have ticked higher in the last year, sugar prices also rose substantially, and sugar has generally been a more profitable option than hydrous ethanol. From April through the end of May, approximately 43 percent of Brazil's sugarcane production in the Center-South region has been used for sugar production, down slightly from 44 percent at the same time last year, but still well above the proportions of the previous 2 years. With the proportion of sugarcane used to produce sugar only slightly down from a year ago, the main reason for Brazil's smaller expected sugar output this year is reduced sugarcane production. Dry conditions in major production regions during August-October 2020 reduced the potential sugarcane output. Related to the dry weather, some areas saw a higher incidence of fires in fields. As of June 1, 129.6 million tons of sugarcane have been crushed, down 11 percent from the same time last year.

Figure 25
Brazil sugar production, exports, and domestic consumption 2001/02 to 2021/22



1/ Metric tons, raw value.
 Source: USDA, Foreign Agricultural Service.

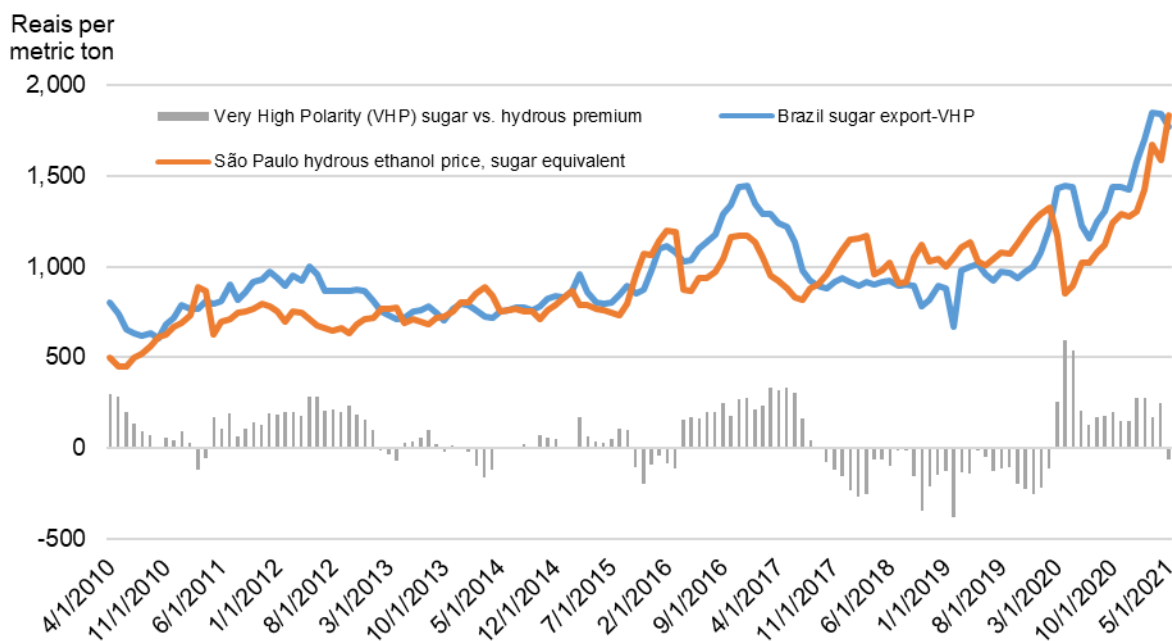
Figure 26
Brazil Center-South sugarcane production and use, through June 1, April-to-March marketing year



Source: Brazilian Sugarcane Industry Association (UNICA).

Significant market uncertainties remain, particularly regarding the dynamic between ethanol and sugar. In line with global oil trends at the time, Brazil's hydrous ethanol price hit a low point in April 2020, but has generally been recovering since (figure 27). The relative prices for Very High Polarity (VHP) sugar (marketed for export) at that point was at a substantial premium to domestic hydrous ethanol. VHP prices dropped a few months later but recovered quickly. The price levels of these products have otherwise followed mostly parallel price trajectories for much of the past year, with VHP generally holding a premium. It bears noting that in May 2021, the ethanol price surged higher and began to hold a small premium over VHP. If this development were to continue in the coming months, then the proportion of sugarcane used in sugar production could decline, which would be even more impactful considering Brazil's tighter overall supplies of sugarcane.

Figure 27
Brazil sugar export and domestic ethanol prices, 2010/11 to 2021/22

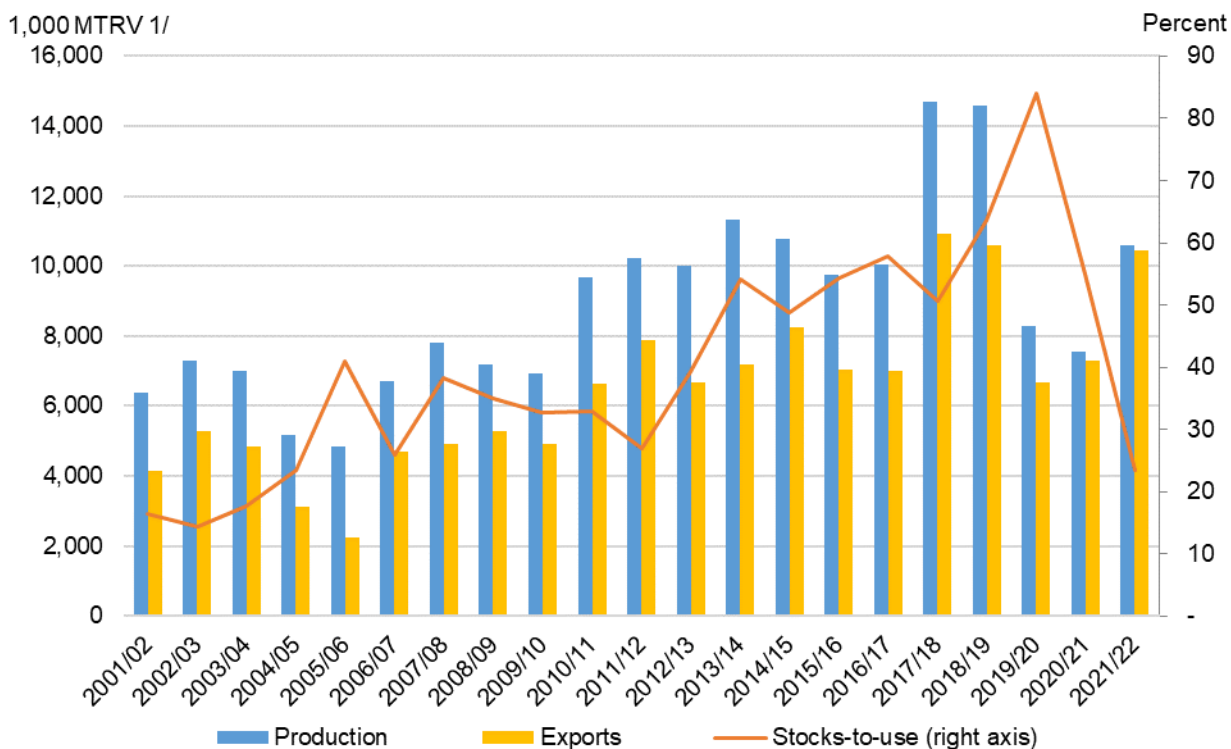


Source: Brazilian Ministry of Agriculture.

The next largest exporter, Thailand, is forecast to expand exports by 43 percent to 10.4 million MT (figure 28), taking advantage of larger supplies, reduced competition from Brazil, and higher world prices. Thailand's production volume is expected higher as the country recovers from two years of drought conditions. Thailand's exports are projected to be at nearly the level of 2017/18 and 2018/19, even though the actual production volume is substantially lower than it was in those years. Thailand's stocks are expected to tighten to 3 million tons, the lowest level in a

decade, as the country focuses on sustaining large exports. Thailand's stocks-to-use ratio is seen plummeting even more dramatically with its total use buoyed by strong exports.

Figure 28
Thailand sugar production, exports, and stocks-to-use, 2001/02 to 2021/22

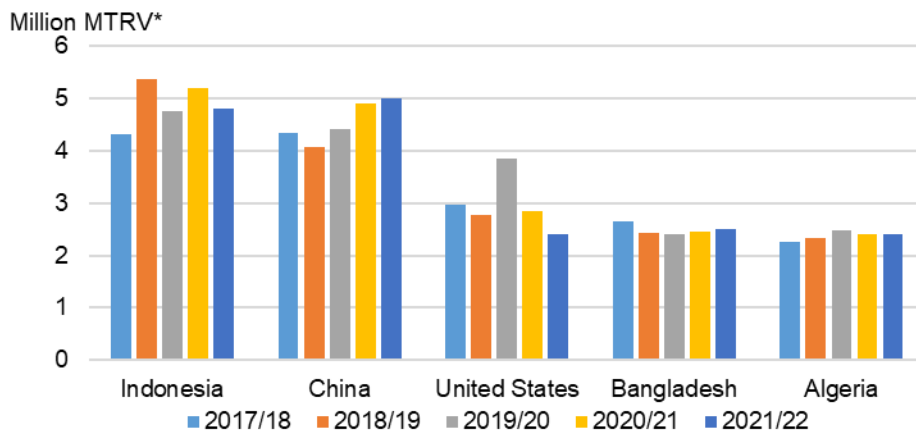


1/ Metric tons, raw value.
 Source: USDA, Foreign Agricultural Service.

Australia's exports are forecast up 200,000 MTRV to 3.5 million, fueled by larger supplies and elevated world prices. Production is expected up based on stronger sugarcane yields. Exports, which typically account for more than three-quarters of Australia's output, are primarily destined for Asian markets. India is forecast to once again be a major exporter with shipments projected at 6 million MTRV, unchanged from the previous year. India's exports in the current year (2020/21) have largely been booked with government subsidies in place. A degree of uncertainty remains regarding India's exports for coming year (2021/22) based on the level of global prices and the government's policies regarding sugar export subsidies. The long-term outlook for India's sugar production is also affected by ethanol policies, with the Government setting goals to produce more ethanol and reduce gasoline consumption in fuels. Guatemala's exports are projected up 94,000 MTRV to 1.8 million MTRV with production rising because of better yielding sugarcane varieties. The European Union is projected to export 1 million MTRV, unchanged from the previous year. Once a major exporter, the European Union in recent years has become a net importer with production now insufficient to meet domestic needs.

Global imports are projected down slightly to 53.6 million MTRV with demand for the top importing countries mostly flat in 2021/22 (figure 29). Indonesia, the world's leading importer, is expected to have slightly stronger consumption in 2021/22, but imports are expected lower with stronger production and tightening stocks. China's imports are projected slightly higher, fueled by demand growth. U.S. imports are projected lower partly due to record-large production and higher beginning stocks. Bangladesh is forecast to import slightly more based on demand growth, while Algeria's imports are forecast flat. Imports for the rest of the world is up slightly with the general theme of economic recovery underpinning demand.

Figure 29
Top sugar importing countries



*Million tons, raw value.

Source: USDA, Foreign Agricultural Service.

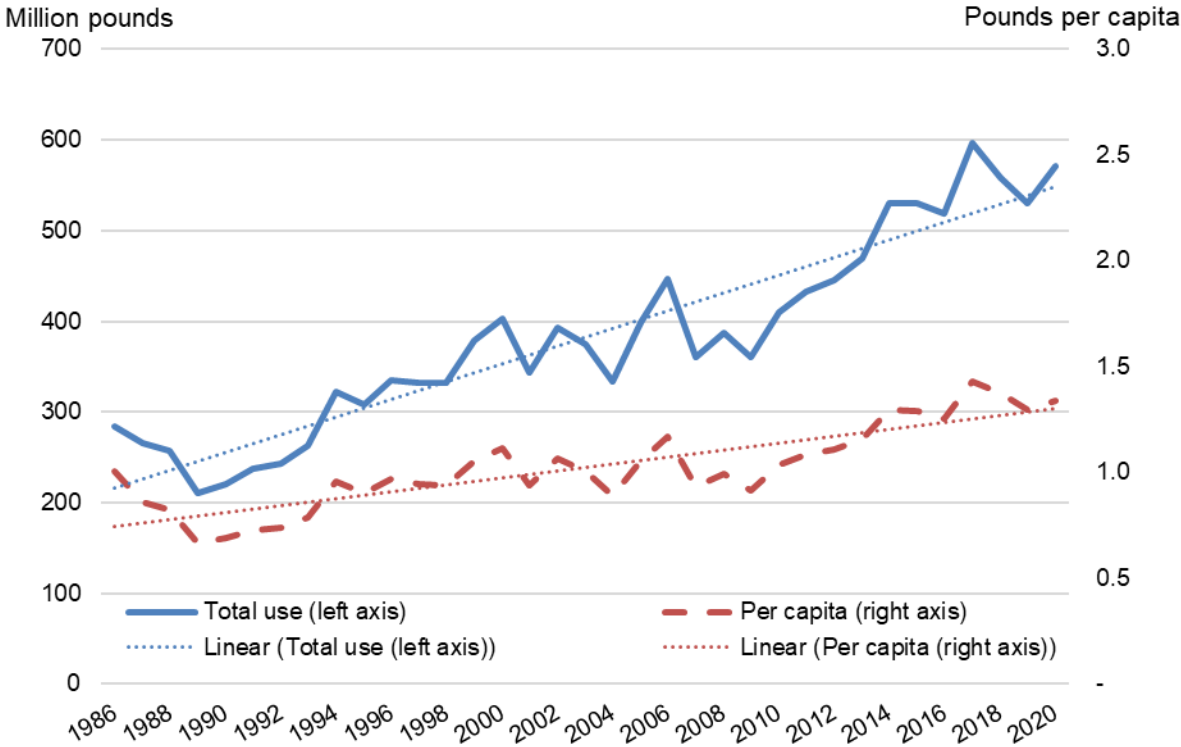
Honey Update

U.S. Demand for Honey Increases

The demand for honey in the United States continues to grow, with 2020 use at 571 million pounds, up about 8 percent from 2019 (figure 30). The record demand was 596 million pounds in 2017. The average rate of growth in U.S. demand from 1986-2020 is 9.7 million pounds per year.

The U.S. honey demand per capita growth trend from 1986-2020 is about 0.016 pounds per year, rising from about 0.8 pounds to about 1.3 pounds. This represents an increase of about 0.5 pounds per capita over 35 years. A trend calculated from 2009 to 2020 is 0.04 pounds per capita, about double the longer-term trend increase. This higher growth in the past decade correlates with increased consumer attention to foods that are perceived as healthier and the increase in demand for organic foods.

Figure 30
US honey consumption 1986-2020



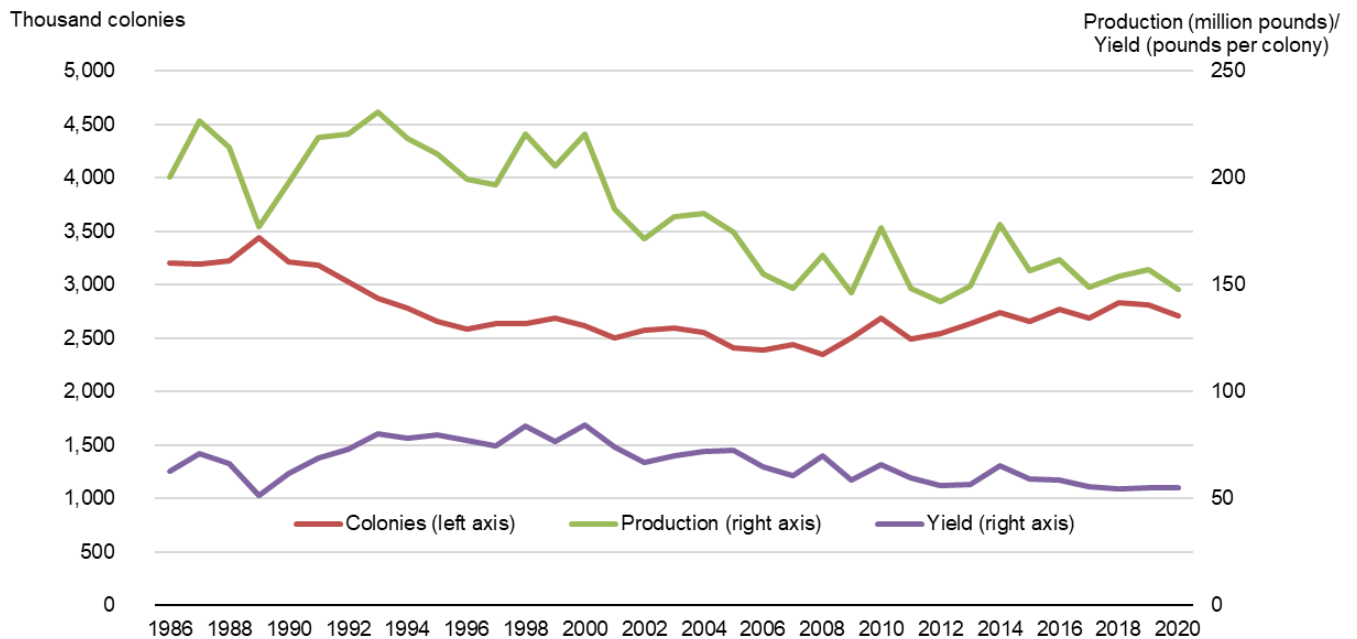
Source: USDA, National Agricultural Statistics Service.

The COVID-19 pandemic caused a global surge in demand for “halo” crops, sometimes called “superfoods”, which are perceived to have medicinal benefits, such as ginger, turmeric and garlic. The prices of many of these crops have surged over the past year. Some consumers consider honey to also be a “superfood” because of its nutritional benefits. However, at least in the United States, honey demand has not experienced as substantial a surge as did some of the other “superfoods”.

U.S. Honey Production Declines Slightly in 2020

U.S. 2020 honey production declined to 148 million pounds from 157 million pounds in 2019 (figure 31). The honey industry lost more than 1,000 workers related to the COVID-19 pandemic, but production declined by only 6 percent from the previous year. The number of producing colonies also declined, to about 2.7 million from 2.8 million in 2019. Yield per colony was 54.5 pounds, down slightly from 2019. The largest producing States are North Dakota, South Dakota, and California.

Figure 31
U.S. honey production, number of colonies, and yield, 1986-2020



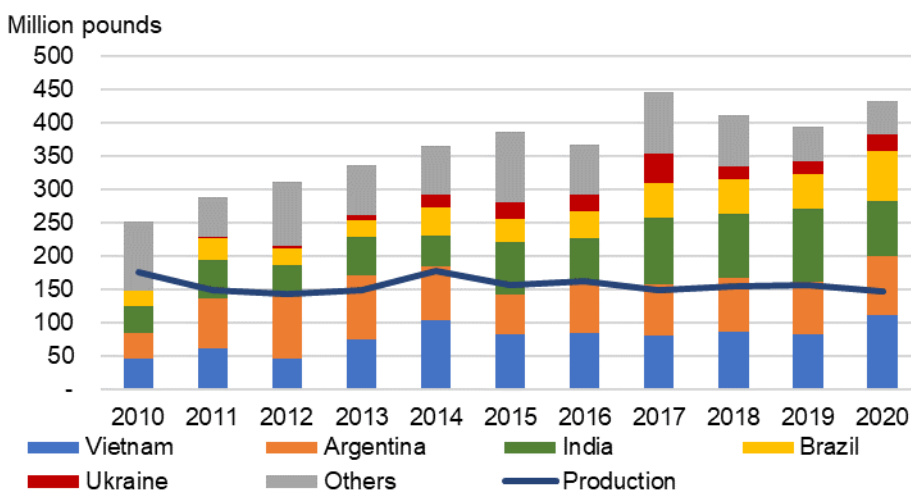
Source: USDA, National Agricultural Statistics Service.

After bottoming out in 2008 at 2.3 million, the total number of colonies has recovered and rose to a peak of 2.8 million in 2018. There are many active programs by the Federal and State governments and in the private sector to combat numerous diseases and pests of honeybees. One recent example involves the Asian Giant Hornet (AGH), a serious predator of honeybees, often wiping out entire colonies. Once confined to Asia, it was discovered a few years ago in western Washington State as well as Vancouver Island in Canada. A team of USDA Agricultural Research Service (ARS) scientists sequenced the complete genome of the AGH and released the data to the research community in August 2020, even before publication in a scientific journal, to make the data freely accessible as early as possible. The data will assist with the coordination of an effective response to the threat and permit distinguishing whether any new AGH colonies are newly introduced or are breeding in North America.

Honey Imports

During the last decade, U.S. imports of honey surged by a total of 73 percent, reaching a near-record 433 million pounds in 2020 (figure 32). Leading suppliers of honey by share of the market oscillated slightly in recent years with Vietnam rising to the top position in 2020, followed by Argentina, India, Brazil, and Ukraine. These top 5 suppliers combined represented 88 percent of all imports in 2020. As domestic production was relatively flat during this period, most of the growth in U.S. demand was met by imports.

Figure 32
U.S. honey imports, by country, and U.S. honey production

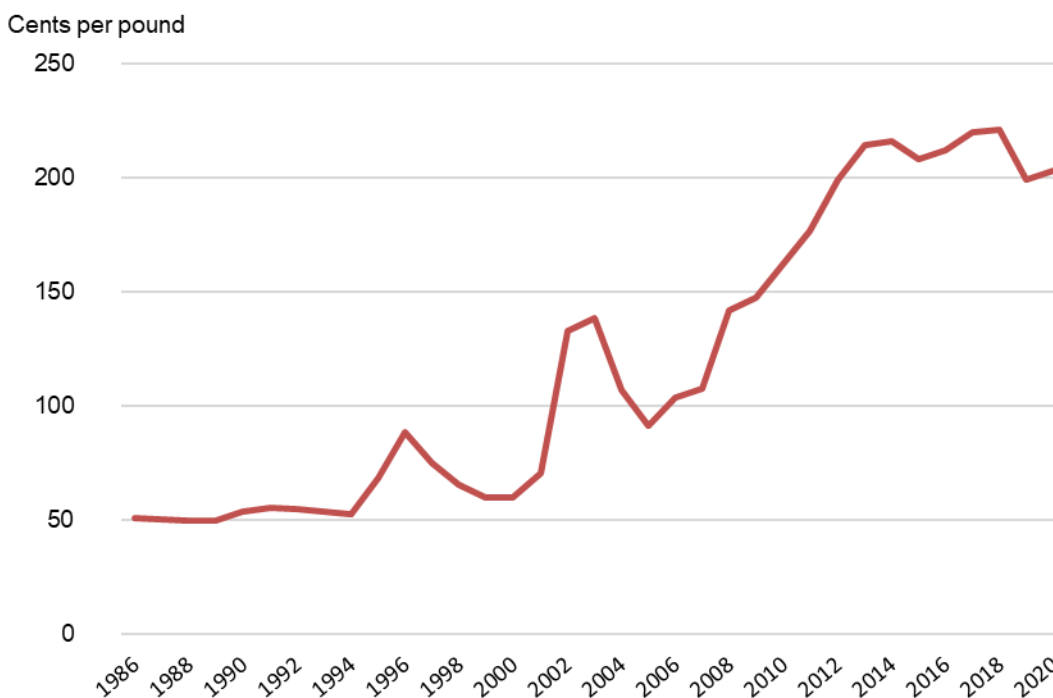


Sources: USDA, National Agricultural Statistics Service and U.S. Department of Commerce, Bureau of the Census.

Honey Prices

The U.S. national average honey price, as reported by USDA's National Agricultural Statistics Service (NASS) increased dramatically over the past 25 years (figure 33). After averaging about 50 cents per pound before 1995, the price increased to above \$1.00 per pound in 2002. The price first rose above \$1.50 per pound in 2010 and rose above \$2.00 per pound in 2013. Since 2013, the price has been relatively flat, falling to \$1.99 per pound in 2019 before rising to \$2.03 in 2020.

Figure 33
US honey price, 1986-2020



Source: USDA, National Agricultural Statistics Service.

Anti-Dumping Cases

Dumping and subsidy investigations on imports of honey from Argentina and China were instituted on September 29, 2000, based on a petition filed by certain domestic producers. In November 2001, the U.S. International Trade Commission (ITC) found that imports of honey from Argentina and China injured the U.S. industry and were sold in the United States at less

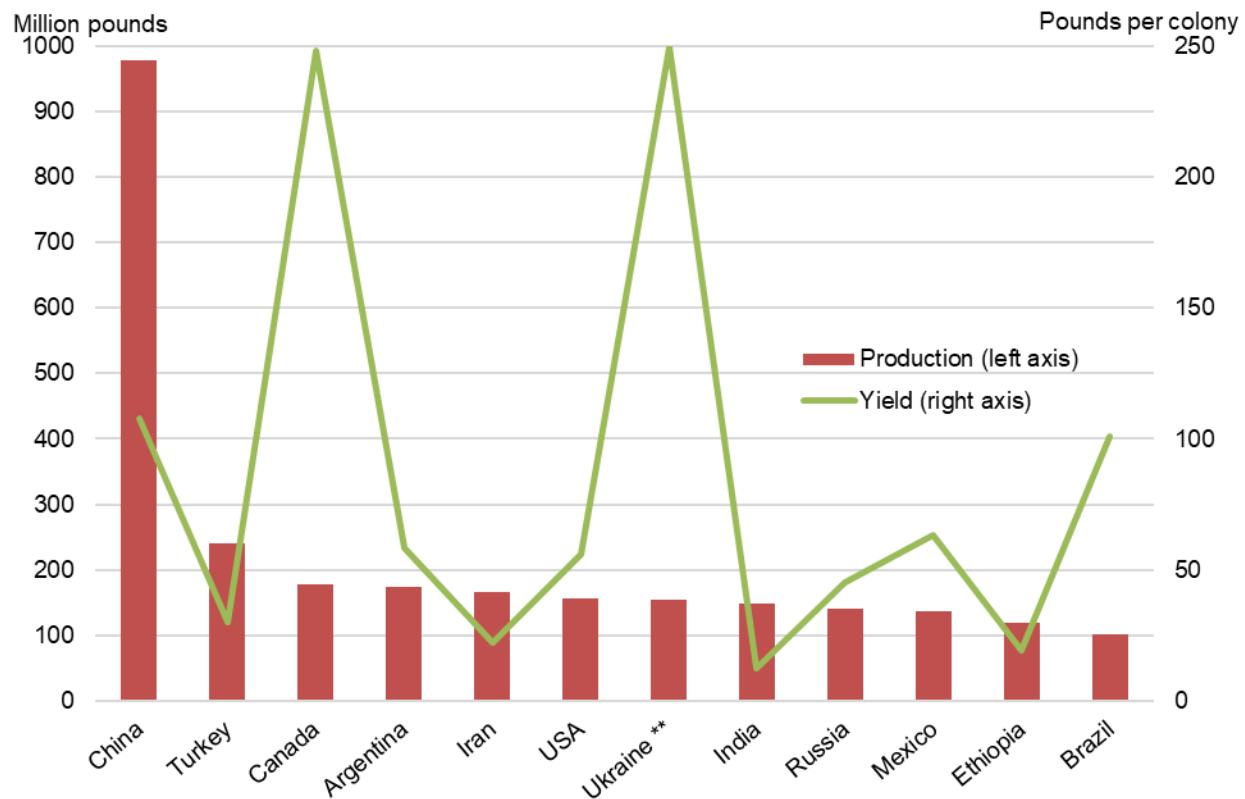
than fair value. The U.S. Department of Commerce (DOC) issued the antidumping duty orders on December 10, 2001. Argentina was also found to subsidizing honey exports and thus countervailing duties were applied to Argentina. The ITC reviews this issue every five years, and each review found elimination of the duties on China would likely harm the U.S. industry and has thus continued the duties. In these reviews the ITC noted continuing evidence of adulteration and dilution of honey with other sugars, and of Chinese honey being imported through other countries.

In April 2021, certain U.S. producers filed antidumping (AD) petitions with the U.S. ITC against the top 5 international suppliers: Argentina, Brazil, India, Thailand, and Vietnam. On June 4, 2021, the ITC announced its preliminary finding that there was a reasonable indication that the U.S. honey industry is materially injured due to imports of raw honey from Argentina, Brazil, India, Ukraine, and Vietnam that are allegedly sold in the United States at less than fair value. The ITC's full report is expected to be published on July 6, 2021. Following the ITC's preliminary determination, the next step is that the DOC will continue its investigation and issue a report containing its preliminary AD duty determinations on or about September 28, 2021.

Global Honey Production

According to the latest data available from the U.N. Food and Agriculture Organization (FAO), in 2019, China produced about 979 million pounds of honey, almost 21 percent of the world total (figure 34). The United States was sixth, with production of 154 million pounds. The Ukraine, whose production is roughly equal to U.S. production, has a yield reported at 59,279 pounds per colony. A few other countries also reported relatively high yields, such as Latvia (46,062) and Belarus (27,887). In many countries, bee colonies are maintained purely for their honey, whereas in the United States beekeepers often obtain more revenue from pollination services than from honey sales (see the article in the June 2020 ERS Sugar Report). Therefore, differences in colony utilization likely account for part of the vast disparity in reported colony yield.

Figure 34:
Top global honey producers, 2019



** Chart scale does not permit display of Ukraine's yield, which is reported as 59,279 pounds per colony.
 Source: United Nations, Food and Agriculture Organization.

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