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# Sugar and Sweeteners Outlook

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## Imports from Mexico in 2016/17 Projected Lower as Higher Beginning Stocks and Production Increase Domestic Supplies

The next release is  
October 18, 2016

Approved by the  
World Agricultural  
Outlook Board.

U.S. sugar supplies in 2016/17 are projected to be 13.916 million short tons, raw value (STRV), a 231,000-STRV decline from the August *World Agricultural Supply and Demand Estimates* (WASDE) report. Total import projections are reduced by 366,000 STRV, accounted for by a projected reduction in imports from Mexico due to the terms of agreement to suspend the Countervailing Duty Investigation, signed by the U.S. Department of Commerce (USDOC) and the Government of Mexico in December 2014. The projected level of domestic production is 64,000 STRV higher than the previous month, as an increased cane sugar production in Florida is only partially offset by a reduction in beet sugar production (due to a forecast of less sugarbeet production in the Red River Valley). If realized, projected 2016/17 production would be a fiscal year record. Ending stocks for 2016/17 are projected to be 1.656 million STRV, resulting in a stocks-to-use ratio of 13.5 percent.

Total U.S. sugar production in 2015/16 is estimated to total 9.001 million STRV, a 76,000-STRV increase from the August report. Estimated beet sugar production accounts for the increase, as reported processor data shows that the season's sugarbeet pile shrink was relatively smaller than previously forecast, although still larger than recent historical levels. Estimated total imports are 5,000 STRV lower than the previous month, with fewer imports from Mexico partially offset by higher expected imports for the re-export program. With no changes to estimated domestic deliveries or exports for 2015/16, ending stocks are estimated to be 71,000 STRV higher than the August estimate, pushing the stocks-to-use ratio up to 16.3 percent from the previous month's estimate of 15.7 percent.

Mexico's total sugar supplies in 2016/17 are projected to increase 2.3 percent compared with the 2015/16 estimate. Projected supplies are increased 26,000 metric tons (MT), actual value, over the previous month due to higher beginning stocks—the result of a lowered export expectation for 2015/16. Mexico exports in 2016/17 are projected to decline 8.7 percent from the 2015/16 estimate as a 24-percent decline in projected exports to the United States is offset by substantially higher exports to other countries than in 2015/16. Ending stocks are projected to increase 125,000 MT from the previous month's projection, but stocks are expected to be kept at a level to satisfy a portion of 2017/18 domestic demand and shipments to the United States. Supplies above this amount are expected to be exported to other countries, contributing to the 2016/17 export projections, rather than being held in inventory.

## ***Increased sugarcane yields in Florida contribute to higher projected sugar supplies for 2016/17***

U.S. total sugar supplies in 2016/17 are projected to be 13.916 million short tons, raw value (STRV), a 231,000-STRV decline from the previous month's WASDE projection. Higher projected beginning stocks and increased domestic production from the previous month's report are offset by lower projected imports.

Table 1 -- U.S. sugar: supply and use, by fiscal year (Oct./Sept.), September 2016.

Items	2014/15			2015/16			2016/17		
	2014/15	(estimate)	(forecast)	2014/15	(estimate)	(forecast)	2014/15	(estimate)	(forecast)
	1,000 Short tons, raw value			1,000 Metric tons, raw value					
Beginning stocks	1,810	1,815	1,991	1,642	1,647	1,807			
Total production	8,656	9,001	9,272	7,853	8,166	8,412			
Beet sugar	4,893	5,124	5,288	4,439	4,649	4,797			
Cane sugar	3,763	3,877	3,984	3,414	3,517	3,614			
Florida	1,981	2,173	2,133	1,797	1,971	1,935			
Louisiana	1,513	1,423	1,676	1,372	1,291	1,520			
Texas	123	116	135	112	105	122			
Hawaii	146	165	40	132	150	36			
Total imports	3,553	3,405	2,652	3,223	3,089	2,406			
Tariff-rate quota imports	1,536	1,686	1,507	1,393	1,530	1,367			
Other program imports	471	375	125	427	340	113			
Non-program imports	1,546	1,344	1,020	1,403	1,219	925			
Mexico	1,532	1,329	1,005	1,389	1,205	912			
Total supply	14,019	14,221	13,916	12,718	12,902	12,624			
Total exports	185	75	25	168	68	23			
Miscellaneous	0	0	0	0	0	0			
Deliveries for domestic use	12,019	12,155	12,235	10,903	11,027	11,099			
Transfer to sugar-containing products for exports under re-export program	103	130	120	93	118	109			
Transfer to polyhydric alcohol, feed, other alcohol	28	25	35	25	23	32			
Commodity Credit Corporation (CCC) sale for ethanol, other	0	0	0	0	0	0			
Deliveries for domestic food and beverage use	11,888	12,000	12,080	10,785	10,886	10,959			
Total Use	12,204	12,230	12,260	11,071	11,095	11,122			
Ending stocks	1,815	1,991	1,656	1,647	1,807	1,502			
Private	1,815	1,991	1,656	1,647	1,807	1,502			
Commodity Credit Corporation (CCC)	0	0	0	0	0	1			
Stocks-to-use ratio	14.87	16.28	13.50	14.87	16.28	13.50			

Source: U.S. Dept. of Agriculture, Economic Research Service, Sugar and Sweetener Outlook.

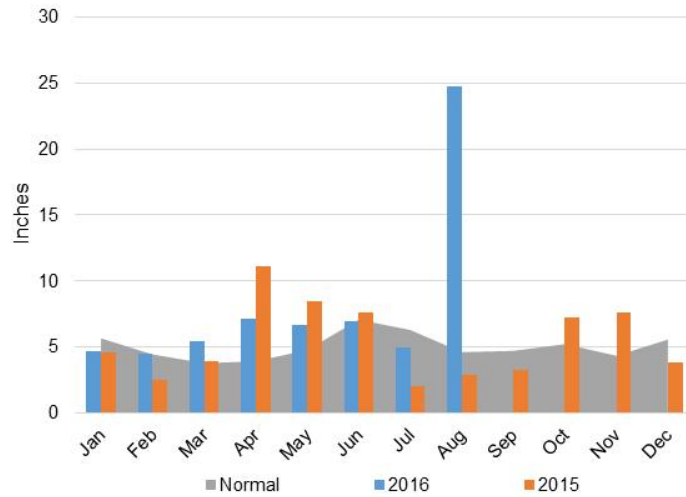
U.S. sugar production in 2016/17 is projected to total 9.272 million short tons, raw value (STRV), a 64,000-STRV increase from the August projection. If realized, this projection would be a fiscal year production record, surpassing 1999/2000's production level of 9.050 million STRV. Beet sugar production is decreased 32,000 STRV to 5.288 million STRV due to changes in harvested area and yield forecasts from the National Agricultural Statistics Service (NASS). Minnesota and North Dakota, the two largest sugarbeet-producing States, accounted for the entirety of the reductions in forecast harvested area and sugarbeet production. Harvested area of sugarbeets in Minnesota is reduced 2,000 acres to 429,000, but yield forecasts are unchanged at 28.5 tons per acre. In North Dakota, harvested area is currently forecast at 210,000 acres, a 1,000-acre reduction from the previous month, and yields are reduced 0.5 tons per acre to 28.4 tons per acre. Yields in North Dakota are still forecast to exceed the 2015/16 crop's yield of 27.9 tons per acre.

Cane sugar production is projected to total 3.984 million STRV, a 96,000-STRV increase compared with the August projection. Florida accounts for the entirety of the increase, with projected production in the State currently at 2.133

million STRV. The current projection level is only 1.9 percent below the 2015/16 crop estimate, which benefited from very good growing conditions and record-high sugarcane yield and sugar per acre levels.

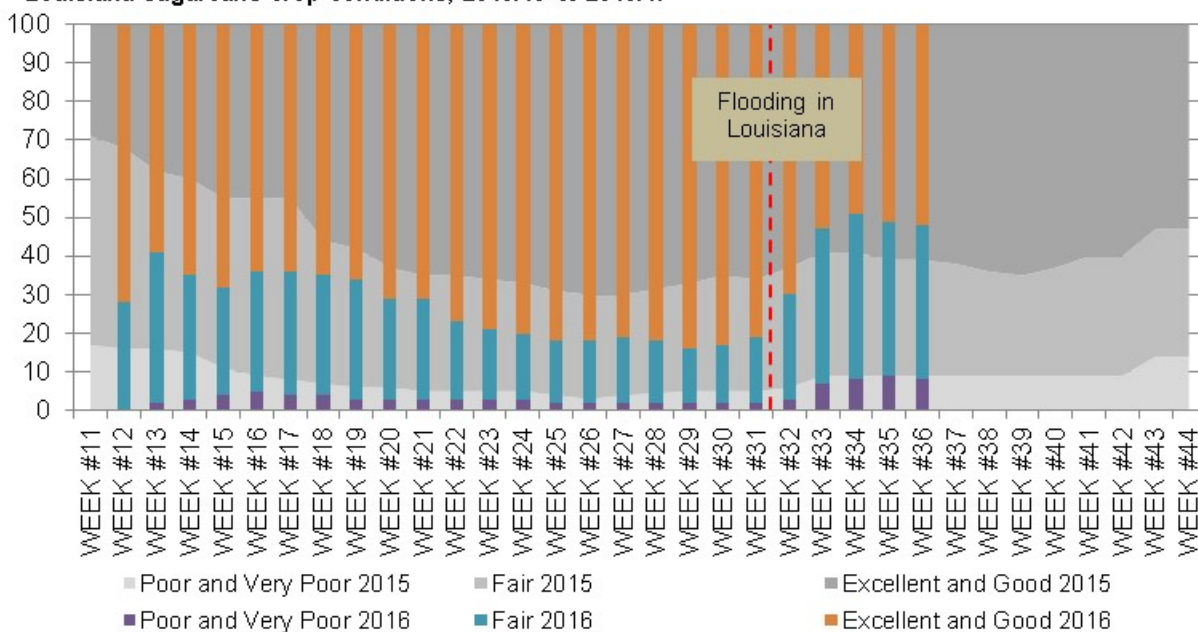
Louisiana production remains unchanged from the previous month, with projected production totaling 1.676 million STRV. Although some sugarcane-growing regions in the State experienced extremely high rainfall and severe flooding during August, NASS sugarcane yield forecasts remained unchanged from the previous month. Crop condition reports reflect a detrimental impact on the crop subsequent to the flooding, although the amount of crop that is rated “poor” or “very poor” is still comparable to the previous year. Similarly, after an initial decline in crop rated “excellent” and “good,” the most recent reports show a subtle improvement in the overall conditions of the State’s crop. While the sugarcane harvest in Louisiana typically begins in mid- to late September, it continues through December and often into January, meaning there is additional time for the crop to recover and develop before it is harvested. The State’s processors’ forecasts submitted to the Farm Service Agency also indicate that harvested area and sugar production will not be substantially impacted as a result of the severe weather conditions.

Figure 1  
**Montly precipitation levels, Lafayette, LA**



Source: U.S. Dept. of Agriculture, Office of the Chief Economist.

Figure 2  
Louisiana sugarcane crop conditions, 2015/16 to 2016/17



Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service.

Projected cane sugar production in Texas and Hawaii in 2016/17 remains unchanged from the previous month at 135,000 STRV and 40,000 STRV, respectively.

Sugar production in 2015/16 is estimated to total 9.001 million STRV, a 76,000-STRV increase from the August estimate. Beet sugar accounts for the entirety of the change, currently estimated at 5.124 million STRV. The latest release of the Farm Service Agency's *Sweetener Market Data (SMD)* provides information for the full August-July 2015/16 sugarbeet crop year, indicating that sugarbeet pile shrink for the crop year was less than previously forecast. Warm weather conditions in the late fall and early winter of 2015/16, when sugarbeets were being harvested and piles formed for storage of the winter slicing campaign, resulted in an increased probability of sugarbeets spoiling and being removed from sugar production. Previous WASDE projections assumed shrink rates between 8.0 and 8.2 percent, implementing processors' forecasts. Crop-year data indicates that the shrink rate was actually 6.5 percent, which is higher than historical averages (5.8 percent from 2009/10 to 2014/15) but not as severe as previous forecasts.

Table 2: Beet sugar production projection calculation, 2015/16

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16		2015/16	
							August	September	August	September
Sugarbeet production (1,000 short tons) 1/	29,783	32,034	28,896	35,224	32,789	31,285	35,359	35,359		
Sugarbeet shrink 2/	5.7%	5.9%	5.9%	4.8%	6.8%	5.4%	8.2%	6.5%		
Sugarbeets sliced (1,000 short tons)	28,097	30,137	27,184	33,532	30,545	29,595	32,460	33,066		
Sugar extraction rate from slice	14.3%	15.4%	15.0%	15.3%	14.3%	14.6%	14.6%	14.6%		
Sugar from beets slice (1,000 STRV)	4,023	4,631	4,086	5,142	4,325	4,325	4,748	4,818		
Sugar from molasses (1,000 STRV) 2/	325	357	401	327	324	341	375	380		
Crop year sugar production (1,000 STRV) 3/	4,348	4,987	4,487	5,469	4,648	4,667	5,123	5,199		
August-September sugar production (1,000 STRV)	396	623	294	708	315	461	688	688		
August-September sugar production forecast (1,000 STRV) 4/	--	--	--	--	--	--	614	614		
Fiscal year sugar production (1,000 STRV)	4,575	4,659	4,900	5,076	4,794	4,893	5,048	5,124		

Notes: 1/ NASS, USDA. 2/ Projections based on processor forecasts published by FSA. 3/ August-July basis. 4/ Based on 2016/17 production.

Source: U.S. Department of Agriculture, Economic Research Service; World Agricultural Outlook Board.

### ***Projected imports from Mexico reduced for 2016/17 based on terms of Suspension Agreement***

Total U.S. sugar imports in 2016/17 are projected to be 2.652 million STRV, a 366,000-STRV decline from the previous month. Imports under quota programs remain unchanged from the August report, totaling 1.507 million STRV. Expected shortfall for the WTO raw sugar TRQ is also unchanged from the previous month at 90,000 STRV. Imports from Mexico in 2016/17 are reduced 366,000 STRV from the previous month, currently projected at 1.005 million STRV. The projection reflects the calculation of U.S. Needs from the latest WASDE report, based on the terms of the suspension agreement for the countervailing duty investigation against sugar from Mexico signed in December 2014. The August projection reflected the U.S. Needs calculation from the July WASDE projections. Subsequent to the July report's release, the forecast increase in U.S. domestic sugar production, as well as relatively larger beginning stocks due primarily to higher 2015/16 domestic production, has decreased U.S. Needs, which governs the market access for Mexican sugar exporters to the United States. The projection would represent a 32-percent decrease from the 2015/16 estimate.

U.S. sugar imports in 2015/16 are estimated at 3.405 million STRV, a 5,000-STRV decline from the August estimate. Imports under quota remain unchanged from the previous month at 1.686 million STRV. Imports for re-export are increased 25,000 STRV to 375,000 STRV, based on pace-to-date data in the SMD through July.

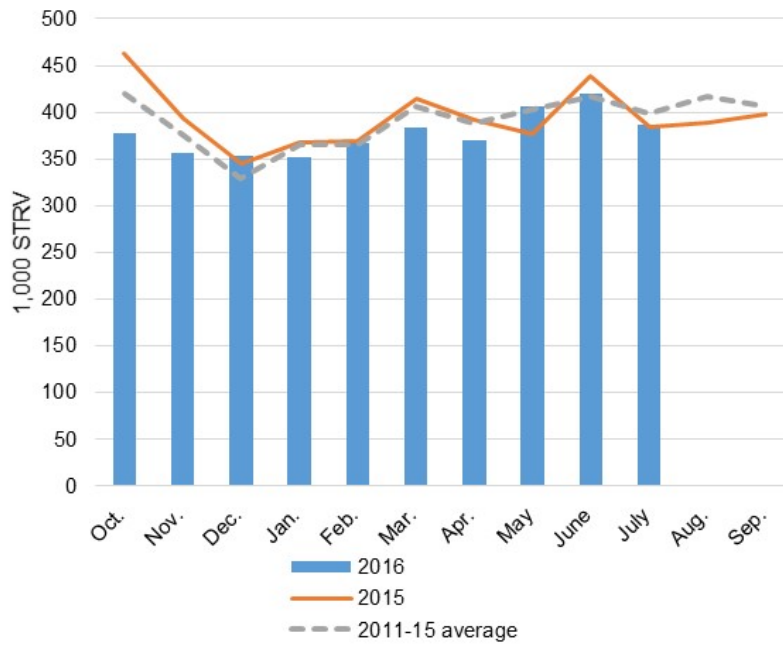
Imports from Mexico in 2015/16 are estimated at 1.329 million STRV, a 30,000-STRV decrease from previous estimates. Previously, imports from Mexico were estimated based on the full amount of the 2015/16 Export Limit, announced by the U.S. Department of Commerce (USDOC) in March 2016, as well as the full amount of the 60,000-STRV addition to the Export Limit announced by the USDOC at the request of USDA in May 2016. There has been some uncertainty in the market as to whether the additional Export Limit amount would be filled, due to the requirement that product must have a polarity of less than or equal to 99.2. Although the Export Limit Period will conclude on September 30, industry reports of shipments that qualify for the specifications set for the additional Export Limit indicate that as much as 30,000 STRV of the limit could be filled before the end of the period. Like all shipments currently sent from Mexico to the United States, an Export License would be required for entry into the country. Otherwise, it will likely be redirected to an alternative international market.

### ***Projected deliveries in 2015/16 and 2016/17 unchanged from August WASDE report***

Total use in 2016/17 is projected to be 12.260 million STRV, unchanged from the previous month. Domestic sugar deliveries for food and beverage use are projected to be 12.080 million STRV, also unchanged but representing a 0.7-percent increase over the current 2015/16 estimate. Exports are projected to be 25,000 STRV, unchanged from the previous month.

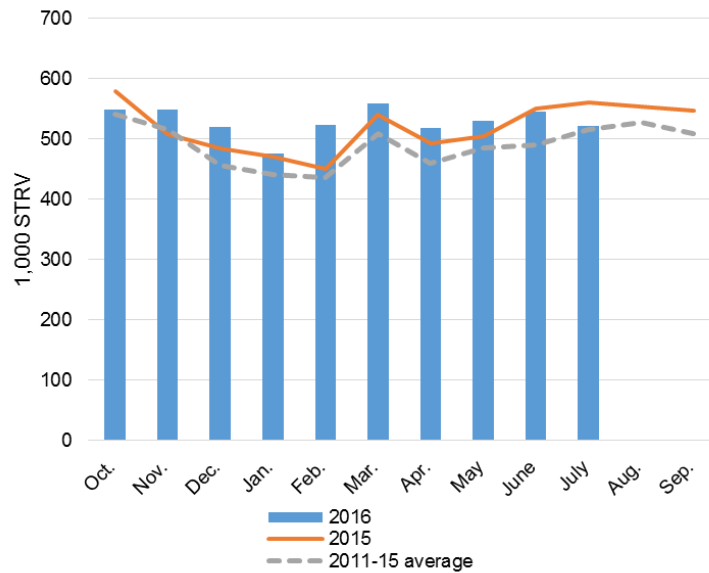
Total sugar use in 2015/16 is estimated to be 12.155 million STRV, unchanged from the previous month. Food and beverage deliveries are estimated to be 12.000 million, also unchanged. For the fiscal year through July, year-to-date domestic sugar deliveries are 0.2-percent behind the 2014/15 year. Beet sugar deliveries are 4.4-percent lower than the previous year over the same time period, although the pace has improved over the last few months, narrowing the deficit seen earlier in the year. Cane sugar deliveries through July are 2.9 percent higher than the previous year. Imports from nonreporters, which have accounted for 7.6 percent of total sugar deliveries thus far in 2015/16, have been 1.3 percent larger than the same period in 2014/15. While the current pace of total deliveries still lags behind the previous year, beet sugar deliveries have improved in the latter portion of the year compared with the first half. The current projection is certainly achievable, particularly if the most recent beet sugar trend continues for the final 2 months of 2015/16.

Figure 3  
**Beet sugar deliveries for human consumption, monthly, fiscal year**



Source: U.S. Dept. of Agriculture, Economic Research Service.

Figure 4  
**Cane sugar deliveries for human consumption, monthly, fiscal year**



Source: U.S. Dept. of Agriculture, Economic Research Service.

Ending stocks for 2016/17 are projected to total 1.656 million STRV, a 231,000-STRV decline from the previous month. The change reflects lower projected imports from Mexico, but is partially offset by higher projected beginning stocks and domestic production. The stocks-to-use ratio for 2016/17 is projected at 13.5 percent.

Ending stocks for 2015/16 are estimated to be 1.991 million STRV, a 71,000-STRV increase, mainly due to the expectation of increased beet sugar production. The stocks-to-use ratio is estimated to be 16.3 percent, compared with the previous month's estimate of 15.7 percent.

***Reduced export estimates to the United States raise estimated Mexico ending stocks for 2015/16***

Total sugar supplies in Mexico for 2015/16 are estimated to be 6.998 million metric tons, actual value (MT), unchanged from the August WASDE estimates. Domestic production remains estimated at 6.117 million MT, based on the latest data reported by Mexico's *Comité Nacional para el Desarrollo Sustentable de la Cana de Azúcar* (Conadesuca), which reported the conclusion of the mill's harvest campaign in early July. Sugar imports in Mexico are estimated to total 70,000 MT, of which 57,000 MT are expected to be imported for the IMMEX program. The remaining 13,000 MT are estimated for domestic human consumption.

Estimated domestic deliveries for 2015/16 are unchanged from the previous month, totaling 4.761 million MT. Deliveries for food and beverage consumption are estimated to be 4.431 million MT, also unchanged. Deliveries to the IMMEX program are estimated to be 330,000 MT.

Exports are estimated at 1.187 million MT, a 26,000-MT decline from the previous month's estimate. Exports to the United States are estimated to total 1.137 million MT, accounting for the entirety of the 26,000-MT decline. The decrease is due to a reduction in the amount of sugar shipped under the additional Export Limit, as described in the U.S. imports section above. Industry reports indicate that shipments fulfilling the requirements of the additional Export Limit may be shipped to the United States before the end of September—the conclusion of the Export Limit Period—but that the full amount is not expected to be filled.

Mexico ending stocks for 2015/16 are estimated to be 1.050 million MT, a 26,000-MT increase due to the reduction in estimated exports. This would result in a 23.7-percent stocks-to-consumption ratio, a 0.6-percent increase from the previous month's estimate.

***Fewer projected exports to the United States in 2016/17 lead to higher projected exports to other countries***

Total Mexico sugar supplies in 2016/17 are currently projected to be 7.160 million MT, a 26,000-MT increase from the previous month due to higher beginning stocks. That would represent a 2.3-percent increase from current 2015/16 total supply estimates.

Production in Mexico in 2016/17 is unchanged from the August projection at 6.100 million MT. No official estimates have been provided by Conadesuca as of September 12; however, the first official estimates are traditionally released in the fall.

Imports for 2016/17 are projected to be 10,000 MT, also unchanged from the previous month's projection, but a decrease of 85.7 percent compared to 2015/16. All projected imports are expected to be for human consumption, with no imports for the IMMEX program anticipated. This is due to the February 2016 changes made to the IMMEX program, implemented in February 2016, which disqualified sugar that benefited from the U.S. re-export program from qualifying for the duty-free benefits of the program.

Domestic deliveries in 2016/17 are projected to be 4.828 million MT, a 1.4-percent increase from the 2015/16 estimate. Deliveries for domestic consumption are projected to increase 1.5 percent compared with 2015/16, totaling 4.498 million MT. The growth is based upon population growth in Mexico, taking into account high-fructose corn syrup (HFCS) consumption at levels equal to 2015/16 estimates of 1.450 million MT. Sugar consumption, therefore, is projected to increase due to a larger consumer base and a relatively larger proportion of total domestic sweetener consumption.

Table 3 -- Mexico sugar supply and use, 2014/15 - 2015/16 and projected 2016/17, September 2016

Items	2014/15	2015/16 (estimate)	2016/17 (forecast)
	1,000 metric tons, actual weight		
Beginning stocks	831	811	1,050
Production	5,985	6,117	6,100
Imports	128	70	10
Imports for consumption	8	13	10
Imports for sugar-containing product exports (IMMEX) 1/	121	57	0
Total supply	6,944	6,998	7,160
Disappearance			
Human consumption	4,408	4,431	4,498
For sugar-containing product exports (IMMEX)	337	330	330
Statistical adjustment	-54		
Total	4,691	4,761	4,828
Exports	1,442	1,187	1,084
Exports to the United States & Puerto Rico	1,311	1,137	860
Exports to other countries	131	50	224
Total use	6,134	5,948	5,912
Ending stocks	811	1,050	1,248
	1,000 metric tons, raw value		
Beginning stocks	881	859	1,113
Production	6,344	6,484	6,466
Imports	136	74	11
Imports for consumption	8	14	11
Imports for sugar-containing product exports (IMMEX)	128	60	0
Total supply	7,361	7,418	7,589
Disappearance			
Human consumption	4,673	4,697	4,768
For sugar-containing product exports (IMMEX)	357	350	350
Statistical adjustment	-57	0	0
Total	4,973	5,046	5,118
Exports	1,529	1,258	1,149
Exports to the United States & Puerto Rico	1,389	1,205	912
Exports to other countries	139	53	237
Total use	6,502	6,305	6,267
Ending stocks	859	1,113	1,322
Stocks-to-human consumption (percent)	18.4	23.7	27.7
Stocks-to-use (percent)	13.2	17.6	21.1
High fructose corn syrup (HFCS) consumption (dry weight)	1,444	1,450	1,450

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

Source: USDA, *World Agricultural Supply and Demand Estimates* and Economic Research Service, *Sugar and Sweeteners Outlook*; Conadesuca.

Exports to the United States in 2016/17 are projected to be 1.084 million MT, a 99,000-MT decrease from the August projection. The updated projection is in line with the calculation for U.S. Needs and the terms of the suspension agreements signed by the USDOC and the Government of Mexico in December 2014.

Exports to other countries are projected to be 224,000 MT, a 214,000-MT increase from the August projection and a substantial increase from the 2015/16 estimates. The projection for exports to countries outside the United States is calculated in concert with the projection for ending stocks in 2016/17. Both projections assume that the Mexican industry will maintain reasonable stock levels to begin 2017/18, taking into account future domestic consumption and export needs. The Mexican market is projected to maintain 22 percent of domestic consumption levels at the end of the year. This is based on historic market performance and the amount necessary to carry the domestic market through the New Year holiday, when domestic production for the subsequent harvest gets fully underway.



Additionally, it is assumed that ending stocks will be held at a level to adequately supply the U.S. export market through the end of December, which the suspension agreements stipulate is to be no more than 30 percent of U.S. Needs. Since expectations for the 2017/18 Export Limit will not be officially established until May 2017, the projection assumes that the Export Limit for 2017/18 is comparable to 2016/17 levels.

Projected ending stocks for 2016/17 are 1.248 million MT, based on this outlined methodology, a 125,000-MT increase from August due to the reduction of exports to the United States and larger beginning stocks. Supplies above this amount are projected to be marketed to countries outside the United States, as demonstrated by the increase in exports to other countries.

A potential marketing alternative to exports would be deliveries to the IMMEX program. This would effectively serve as sugar exports through sugar-containing products rather than as a commodity product, particularly with the recent changes to regulations to the IMMEX program that would boost the demand for domestic sugar relative to imported sugar. Current projections assume that exports, rather than the IMMEX program, will absorb supplies above the reasonable stock-level calculation.

The projected Mexico stocks-to-consumption ratio for 2016/17 is 27.7 percent, an increase from the previous month's projection of 25.0 percent. This is relatively large by historical standards but is moderated by the increase in non-U.S. exports, as previously described.

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