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Sugar and Sweeteners Outlook

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U.S. Sugar July 2013

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On June 17, 2013, the U.S. Department of Agriculture (USDA) announced actions to manage the domestic sugar surplus. According to the USDA, legislation requires that the USDA act to stabilize the domestic market. The USDA announcement consisted of two parts. First, USDA announced its intention to purchase sugar from domestic sugarcane or sugarbeet processors and subsequently conduct voluntary exchanges for credits under the Refined Sugar Re-export Program. Later the USDA announced that it would also permit private sector exporters and traders to voluntarily exchange Trade Promotion Agreement (TPA) Certificates of Quota Eligibility (CQEs) granted under the U.S.-Colombia TPA and the U.S.-Panama TPA for Commodity Credit Corporation (CCC) stocks. Second, USDA announced that licensed refiners will temporarily have 270 days—rather than 90 days—to make required exports or sugar transfers under the Refined Sugar Re-export Program. This action increases the pool of available re-export credits, facilitating the exchange.

Recent *Sugar and Sweeteners Outlook* Special Articles

“Long-term Projection of U.S. and Mexico Sugar Supply and Use through 2022/23,” pdf pages 13-30 of the *Sugar and Sweetener* report
(<http://www.ers.usda.gov/media/1023493/sssm294.pdf>)

“FY 2013 Sugar Outlook—A Method for Analyzing Excess Supply,” pdf pages 11-27 of the *Sugar and Sweetener* report
<http://www.ers.usda.gov/media/1059159/sssm295.pdf>

“Indeterminacy in Measuring U.S. Sugar Deliveries for Human Consumption,” pdf pages 13-30 of the *Sugar and Sweetener* report
(<http://www.ers.usda.gov/media/1079499/sssm296.pdf>)

On July 11, 2013, the U.S. Department of Agriculture (USDA) published in the *World Agricultural Supply and Demand Estimates* (WASDE) its latest sugar supply and use projections for Mexico and the United States for fiscal year (FY) 2013 and projections for FY 2014. Most changes to the U.S. sugar supply and use balance were trade-related. Because of narrow margins between U.S. and world prices, the USDA lowered projections from last month for World Trade Organization (WTO) tariff-rate quota (TRQ) imports by 26,878 short tons, raw value (STRV) in 2012/13 and by 150,000 STRV in 2013/14. The USDA lowered imports from Colombia by 37,972 STRV due to the CQE for CCC sugar exchange. The USDA lowered imports expected in 2013/14. In addition to lower TRQ imports (150,000 STRV), imports from Mexico are projected 275,760 STRV lower and re-export imports are 275,000 STRV lower due to the export credit for CCC sugar exchange.

The USDA made minor changes to sugar delivery projections and 2013/14 production. Ending stocks for 2012/13 are estimated lower by over 12,000 STRV at 2.219 million STRV. The implied stocks-to-use ratio at 18.8 percent is 0.2 percentage points lower than estimated last month. Ending stocks for 2013/14 are projected much lower than last month at 2.013 million STRV, a decrease of 667,560 STRV. The stocks-to-use ratio is 16.8 percent, down from the 22.4 percent projected last month.

The USDA estimates final 2012/13 Mexico sugar production at 6.990 million mt, an increase of 150,000 mt from June, based on an increased harvested area estimate. The USDA did not change its forecast of Mexico 2013/14 sugar production, which remains at 5.887 million mt. The USDA increased its estimate of 2012/13 Mexico sugar consumption by 235,000 mt to 4.435 million mt based on analysis of more reliable data. The forecast for 2013/14 is 4.500 million mt. Exports in 2013/14 are projected at 1.701 million mt. Of this amount, 1.591 million mt is projected to enter the U.S. market. This forecast is 236,000 mt (275,760 STRV) lower than last month.

U.S. Department of Agriculture Sugar Purchase and Exchange Action

On June 17, 2013, the U.S. Department of Agriculture (USDA) announced actions to manage the domestic sugar surplus. Legislation requires that the USDA act to stabilize the domestic market. The goal is to manage the sugar program while minimizing Federal sugar program expenditures.

The 2012/13 marketing year has seen plentiful domestic sugar supplies and weak processors' prices. Both the 2012/13 U.S. sugarbeet and Louisiana sugarcane crops have been above average due to very good crop yields and growers' expansion of area for planting and harvest. Another factor was that earlier in the crop year, a cane sugar refiner in Louisiana experienced technical difficulties. The resulting decline in capacity utilization reduced demand for locally produced raw cane sugar, leading to above-average processors' stocks. High domestic transport costs resulting from "Jones-Act" legislation reduced refiners' demand for this sugar outside of Louisiana.¹ Just as important have been declines in world raw sugar prices due to abundant world supplies and record sugar production in Mexico. The prospect of strong sugar inflows from Mexico has kept the U.S. raw sugar price (Intercontinental Exchange (ICE) no.16 nearby futures) barely above the depressed world raw sugar price (ICE no. 11 nearby futures) and well below domestic price sugar support levels administered by the USDA.²

The USDA announcement consisted of two parts. First, USDA announced its intention to purchase sugar from domestic sugarcane or sugar beet processors and subsequently conduct voluntary exchanges for credits under the Refined Sugar Re-export Program. Exchanging sugar for credits reduces imports into the U.S. and is designed to reduce the sugar surplus. It is a less costly option than loan forfeitures. Since not less than 2.5 tons of import credits will be exchanged per 1 ton of sugar, there will be a minimum net reduction of 1.5 tons of sugar in the U.S. market per ton of sugar exchanged, making this a less costly option than forfeitures. USDA anticipates this action could remove around 300,000 tons of sugar from the U.S. market and cost approximately \$38 million, subject to sequester, which is one-third the expected cost of forfeitures. The USDA will continue to monitor current market conditions and projections to determine if additional actions are necessary.

Second, USDA announced that licensed refiners have 270 days—rather than 90 days—to make required exports or sugar transfers under the Refined Sugar Re-export Program. This action increases the pool of available re-export credits, facilitating the exchange announced above. These temporary waivers make no permanent change to Re-export Program rules.

In a subsequent announcement on June 26, 2013, the USDA initiated additional action to manage the domestic sugar surplus complementary to the earlier action. The USDA announced that it would permit private sector exporters and traders to voluntarily exchange Trade Promotion Agreement (TPA) Certificates of Quota Eligibility (CQEs) granted under the U.S.-Colombia TPA and the U.S.-Panama TPA for Commodity Credit Corporation stocks. A valid TPA CQE is required for the import of sugar into the United States under a TPA sugar tariff-rate quota, and thus each TPA CQE represents a given quantity of import access. Exchanging sugar for TPA CQE reduces imports into the United States and is designed to reduce the sugar surplus, a less costly option than loan forfeitures. This additional action was expected to remove around 50,000 tons of sugar from the U.S. market and cost approximately \$8 million.

¹ The Jones Act is legislation that regulates maritime commerce between U.S. cities. The Jones Act is found in Section 27 of the Merchant Marine Act of 1920. The act requires that goods and passengers transported by water between U.S. ports be done in U.S.-made ships, owned by U.S. citizens, and crewed by U.S. citizens. The effect is to inflate costs above what would be otherwise be the case.

²See: <http://www.ers.usda.gov/topics/crops/sugar-sweeteners/policy.aspx> for a summary of the current U.S. sugar program.

The USDA set out dates for sugar processors to offer sugar currently under CCC loan for purchase by the CCC and for the exchange of the sugar for re-export credits and CQEs. On July 10, 2013, the USDA released details of the purchase and exchange. Table 1 shows the lots of beet and cane sugar purchased, the purchase price, CCC total cost, and the exchange of sugar for re-export credits and CQEs. The CCC purchase is for 91,238 metric tons mt (36,291 mt of beet sugar and 54,946 mt of cane sugar) at a total cost of \$43.835 million. The quantity of re-export credits surrendered for the sugar (recorded in metric ton units) totaled 264,705 mt, and the CQEs totaled 34,448 mt. The final column showing the ratios of credits/CQEs to the sugar quantity purchased indicate an average credit/CQE to sugar ratio of 3.279.

The USDA estimated the impact of the purchase and exchange action on the 2012/13 and 2013/14 sugar supply and use balances. The action reduced 2012/13 sugar imports expected from Colombia by 34,448 mt or 37,972 short tons, raw value (STRV). The export credit exchange reduces re-export program imports that were expected in 2013/14 from 400,000 STRV to 125,000 STRV. The USDA maintains that its action, although costly, averted an expected \$110.7 million in loan forfeiture costs, thus saving an estimated \$66.9 million.

Table 1-- Purchase and exchange of Commodity Credit Corporation (CCC)-owned sugar for re-export credits and certificates of quota eligibility (CQE), July 2013

Sugar storage location	CCC-purchase quantity (metric tons)	CCC-purchase price (Dollars/metric ton)	CCC-purchase price (Cents/pound)	CCC total cost (Dollars)	exchange partner	Re-export credits exchanged	CQEs exchanged	Ratio: credit/CQE to sugar quantity
<u>Beet sugar</u>								
SIDNEY, MT	1,605	544.84	24.71	874,474	United Sugars Corporation	8,025	0	5.000
SIDNEY, MT	160	544.84	24.71	87,131	United Sugars Corporation	790	0	4.940
SIDNEY, MT	1,363	544.84	24.71	742,365	United Sugars Corporation	6,145	0	4.510
SIDNEY, MT	564	544.84	24.71	307,487	United Sugars Corporation	2,427	0	4.300
CROSWELL, MI	292	581.66	26.38	169,708	AmCane Sugar LLC	1,240	0	4.250
LONGMONT, CO	6,804	551.16	25.00	3,750,003	CSC Sugar LLC	0	27,220	4.001
TORRINGTON, WY	2,729	551.16	25.00	1,504,212	CSC Sugar LLC	10,919	0	4.001
STERLING, CO	2,268	551.16	25.00	1,249,999	CSC Sugar LLC	9,073	0	4.001
MITCHELL, NE	4,536	551.16	25.00	2,499,998	CSC Sugar LLC	18,147	0	4.001
TORRINGTON, WY	1,807	551.16	25.00	995,787	CSC Sugar LLC	0	7,228	4.001
SAGINAW, MI	1,448	581.66	26.38	842,244	Michigan Sugar Company	5,806	0	4.010
LOVELL, WY	2,268	546.75	24.80	1,239,999	CSC Sugar LLC	9,073	0	4.001
BILLINGS, MT	2,268	546.75	24.80	1,239,999	CSC Sugar LLC	9,073	0	4.001
CROSWELL, MI	1,055	581.66	26.38	613,788	CSC Sugar LLC	4,222	0	4.001
CARROLLTON, MI	1,123	581.66	26.38	653,187	CSC Sugar LLC	4,493	0	4.001
SIDNEY, MT	632	544.84	24.71	344,581	United Sugars Corporation	2,214	0	3.500
SIDNEY, MT	744	544.84	24.71	405,581	United Sugars Corporation	2,427	0	3.260
SIDNEY, MT	1,408	544.84	24.71	767,198	United Sugars Corporation	4,590	0	3.260
SIDNEY, MT	3,217	544.84	24.71	1,752,752	United Sugars Corporation	10,455	0	3.250
Sub-total	36,291	552.21	25.05	20,040,493		109,119	34,448	3.956
<u>Cane sugar</u>								
WHITE CASTLE, LA	5,000	432.98	19.64	2,164,888	Imperial-Savannah LP	15,586	0	3.117
NEW IBERIA, LA	12,000	432.53	19.62	5,190,413	American Sugar Refining, Inc.	33,750	0	2.813
WHITE CASTLE, LA	17,000	432.98	19.64	7,360,620	American Sugar Refining, Inc.	47,600	0	2.800
BRUSLY, LA	19,178	433.42	19.66	8,312,198	American Sugar Refining, Inc.	53,699	0	2.800
LAKELAND, LA	1,768	433.42	19.66	766,421	American Sugar Refining, Inc.	4,951	0	2.800
Sub-total	54,946	433.05	19.64	23,794,540		155,586	0	2.832
Total	91,238	480.45	21.79	43,835,033		264,705	34,448	3.279

Source: United States Dept. of Agriculture, Foreign Service Agency; Commodity Credit Corporation.

Sugar and Sweeteners in the North American Free Trade Area

On July 11, 2013, the U.S. Department of Agriculture (USDA) published in the *World Agricultural Supply and Demand Estimates* (WASDE) its latest sugar supply and use projections for Mexico and the United States for fiscal year (FY) 2013 and projections for FY 2014.

U.S. Sugar: Trade

Most changes to the U.S. sugar supply and use balance this month have been trade-related. Table 2 shows changes made to trade in 2012/13 and table 3 shows the changes projected for 2013/14. Compared with last month, World Trade Organization (WTO) tariff-rate quota (TRQ) imports are projected at 26,878 short tons, raw value (STRV) lower in 2012/13 and 150,000 STRV lower in 2013/14. The WTO TRQ shortfall for 2012/13 is now estimated at a record 540,878 STRV and is projected at 350,000 STRV for 2013/14. By themselves, these shortfall increases are supportive of U.S. sugar prices, but large supplies from Mexico and falling world prices counteract this effect.

Margins between the U.S. raw sugar price (Intercontinental Exchange (ICE) No. 16 nearby futures) and the world raw sugar price (ICE No.11 nearby futures) have averaged between 2.25 and 3.00 cents per pound since the beginning of the year. The margin has held because of record supplies available for import from Mexico. At the same time, the world price has fallen from 18.70 cents per pound in January to 16.35 cents per pound in July. U.S. raw sugar prices, which were averaging 21.57 cents per pound in January, are averaging 18.81 cents per pound in the first 2 weeks of July. USDA's Farm Service Agency (FSA) calculates a minimum raw sugar price to avoid sugar loan forfeitures to the Commodity Credit Corporation (CCC) at 20.94 cents per pound.

Prospects for stronger world sugar prices are not good. Although there has been some weather-related choppiness, the Brazilian Center/South harvest has been progressing at a good rate. Weather developments have been supportive of production in the Indian subcontinent as well. Currencies of several important producers have been weakening significantly. The Brazilian *real* has depreciated by about 12 percent from recent levels to about 2.25 *reals* per dollar, a 4-year low. This means that local producers have seen a rise in their sugar prices in spite of the world price decline measured in U.S. currency. Producers in Australia, India, and South Africa have seen similar price increases in their own currencies. The world price at which these exporters are willing to offer their sugar to the world market is thus lower.

The USDA lowered its estimate of TRQ sugar entering under Free Trade Agreements (FTAs) by 24,789 STRV. As part of the Certificate of Quota Eligibility (CQE) for CCC sugar exchange, imports from Colombia are lowered by 37,972 STRV. As an offset, the USDA now expects Panama to export this full allotment under its FTA, increasing 2012/13 imports by 4,409 STRV.

The USDA also made an accounting adjustment to record 8,774 STRV from Colombia from its calendar year 2012 quota amount that entered in the first 3 months of 2012/13.

The USDA increased its estimate of imports from Mexico in 2012/13 by 109,000 STRV to 1.900 million STRV. The strong pace of imports, especially since March, is expected to continue the rest of the fiscal year. Monthly imports for the final 3 months of the fiscal year are projected to average between 170,000–175,000 STRV. The rise in imports from Mexico more than offsets the TRQ reductions: 2012/13 imports are estimated at 3.024 million STRV, an increase of 58,436 STRV over last month.

Reduced TRQ raw sugar imports resulting from the narrow gap between U.S. and world raw sugar prices have changed the complexion of imports from Mexico. The *Sugar and Sweetener Outlook* estimates Mexico's share of U.S. refiners' imports through May at 51.3 percent, up from the 19.6 percent for the corresponding time period over the last 5 years. Most of this sugar would be raw sugar for further processing and not the high proportion of refined

Table 2 -- USDA estimate of sugar imports in FY 2013

	July 2013		Change		June 2013	
	Metric tons, raw value	Short tons, raw value	Metric tons, raw value	Short tons, raw value	Metric tons, raw value	Short tons, raw value
Raw sugar TRQ	1,117,195	1,231,497			1,117,195	1,231,497
Less shortfall attributable to Mexico 1/						
Less other shortfall	-490,676	-540,878	-24,383	-26,878	-466,293	-514,000
Additional Quota					0	0
Total raw sugar TRQ	626,519	690,619	-24,383	-26,878	650,902	717,497
Refined sugar TRQ						
Allocation to Canada	12,050	13,283			12,050	13,283
Allocation to Mexico						
Less Mexican shortfall 1/						
Global	8,294	9,143			8,294	9,143
Specialty						
Base	1,656	1,825			1,656	1,825
Additional	95,254	105,000			95,254	105,000
Total refined sugar TRQ	117,254	129,250			117,254	129,250
Free Trade Agreements						
CAFTA/DR CY 2012, entered in FY 2013	24,702	27,229			24,702	27,229
CAFTA/DR CY 2013, forecast to enter in FY 2013	97,180	107,123			97,180	107,123
Peru CY 2012, entered in FY 2013	0	0			0	0
Peru CY 2013, forecast to enter in FY 2013	2,000	2,205			2,000	2,205
Colombia CY 2012, entered in FY 2013	14,514	15,999	7,960	8,774	6,554	7,225
Colombia CY 2013, forecast to enter in FY 2013	9,748	10,745	-34,448	-37,972	44,196	48,718
Panama CY 2012, entered in FY 2013	0	0			0	0
Panama CY 2013, forecast to enter in FY 2013	5,000	5,512	4,000	4,409	1,000	1,102
Total Free Trade Agreements	153,144	168,812	-22,488	-24,789	175,632	193,601
Total estimate TRQ entries	896,917	988,682	-46,871	-50,564	943,788	1,039,246
Mexico	1,723,651	1,900,000	98,883	109,000	1,624,768	1,791,000
Re-export program imports	113,398	125,000	0	0	113,398	125,000
Sugar syrups, high-tier	9,072	10,000	0	0	9,072	10,000
Total projected imports	2,743,038	3,023,682	51,887	58,436	2,691,151	2,965,246

1/ Total entries from Mexico, quota and non-quota, reflected below. CY = Calendar Year.

Source: United States Department of Agriculture, Foreign Agency Service; Sugar Monthly Import and Re-Export Data Report, July 2013.

Table 3 -- USDA estimate of sugar imports in FY 2014

	July 2013		Change		June 2013	
	Metric tons, raw value	Short tons, raw value			Metric tons, raw value	Short tons, raw value
Raw sugar TRQ	1,117,195	1,231,497			1,117,195	1,231,497
Less other shortfall	-317,515	-350,000	-136,078	-150,000	-181,437	-200,000
Additional Quota						
Total raw sugar TRQ	799,680	881,496	-136,078	-150,000	935,758	1,031,497
Refined sugar TRQ						
Allocation to Canada	NA	NA			NA	NA
Allocation to Mexico Less Mexican shortfall 1/	NA	NA			NA	NA
Global	NA	NA			NA	NA
Specialty						
Base	1,656	1,825			1,656	1,825
Additional	NA	NA			NA	NA
Total refined sugar TRQ	22,000	24,251			22,000	24,251
Free Trade Agreements						
CAFTA/DR CY 2013, entered in FY 2014	27,626	30,452			27,626	30,452
CAFTA/DR CY 2014, forecast to enter in FY 2014	107,994	119,043			107,994	119,043
Peru CY 2013, entered in FY 2014	0	0			0	0
Peru CY 2014, forecast to enter in FY 2014	2,000	2,205			2,000	2,205
Colombia CY 2013, entered in FY 2014	6,554	7,225	125	138	6,429	7,087
Colombia CY 2014, forecast to enter in FY 2014	44,946	49,544	-125	-138	45,071	49,682
Panama CY 2013, entered in FY 2014	1,620	1,786	1,620	1,786	0	0
Panama CY 2014, forecast to enter in FY 2014	5,060	5,578	4,060	4,475	1,000	1,102
Total Free Trade Agreements	195,800	215,833	5,680	6,261	190,120	209,571
Total estimate TRQ entries	1,017,480	1,121,580	-130,398	-143,739	1,147,878	1,265,319
Mexico	1,686,457	1,859,000	-250,383	-276,001	1,936,840	2,135,001
Re-export program imports	113,398	125,000	-249,476	-275,000	362,874	400,000
Sugar syrups, high-tier	9,072	10,000			9,072	10,000
Total projected imports	2,826,406	3,115,580	-630,257	-694,740	3,456,664	3,810,319

1/ Total entries from Mexico, quota and non-quota, reflected below. CY = Calendar Year.

Source: United States Department of Agriculture, Foreign Agency Service; Sugar Monthly Import and Re-Export Data Report, July 2013.

sugar imported in the earlier period. The *Sugar and Sweetener Outlook* estimates that 65.5 percent of imports from Mexico have been destined to refiners, up from the 42.3 percent average of the previous 5 years.

The USDA projects far fewer imports in 2013/14 than last month: 3.116 million STRV, a decrease of 694,740 STRV. In addition to lower TRQ imports (150,000 STRV), imports from Mexico are projected 276,001 STRV lower (discussed below) and re-export imports are 275,000 STRV lower due to the export credit for CCC sugar exchange (discussed above).

U.S. Sugar: Production

USDA’s National Agricultural Statistics Service (NASS) released its first forecasts of area planted and harvested for the 2013/14 crop year on June 28. Table 4 shows these forecasts for the U.S. sugarbeet producing regions and the assumptions made by USDA’s Interagency Commodity Estimates Committee (ICEC) for sugar for yield and beet sugar production. The ICEC uses recent-year averages for projecting yield and the implied sugarbeet crops. Although regional beet sugar production totals are not available to the ICEC for use in forecasting, data from LMC International was used in forecasting the regional sugar production from beet slicing shown in the table. These regional projection amounts sum to 4.495 million STRV. The ICEC projects sugar from molasses desugaring at 396,600 STRV. Total beet sugar production is the sum of slicing and desugared at 4.890 million STRV.

Table 5 shows the sugarbeet crop year (September to August) supply parameters for the last several years. Unlike in 2012/13, late planting in the Red River Valley and Michigan is expected to limit early-season harvesting to historic norms, thereby implying not much difference between crop year and fiscal year production. Although late planting this year somewhat resembles the late planting of 2011/12, the ICEC expects normal yields, far above the below-average yields of 2011/12. Production this coming crop year is 535,000 STRV lower than the 2012/13 total, reflecting the return to normal yields from the record 2012/13 yields.

Table 6 shows sugarcane supply parameters for 2013/14. NASS expects about the same area to be harvested for sugar and seed as last year in Florida and Hawaii but is forecasting a 12,000-acre increase in Louisiana (+2.8 percent) and a 7,000-acre decrease in Texas (-15.9 percent). The ICEC increased its projection of Louisiana production by 39,000 STRV to 1.600 million STRV and lowered Texas production by 30,000 STRV to 140,000 STRV.

Table 4 -- Sugar and Sweetener Outlook projections of sugarbeet production and sugar production from sugarbeet slicing for 2013/14

	Great Lakes 1/	Red River Valley 2/	Great Plains 3/	Northwest4/	Southwest 5/	Total
Planted area (acres) 6/	152,000	700,000	146,500	184,600	24,500	1,207,600
Harvested area (acres) 6/	150,000	682,000	143,700	182,500	24,500	1,182,700
Yield (tons/acre) 7/	25.30	24.71	26.04	33.30	42.03	26.63
Sugarbeet production (tons) 7/	3,795,000	16,852,220	3,741,948	6,077,250	1,029,735	31,496,153
Sugar production (tons, raw value) 7/ 8/	556,294	2,396,615	513,703	892,190	135,719	4,494,521

1/ Great Lakes = Michigan; 2/ Minnesota and North Dakota; 3/ Colorado, Montana, Nebraska, and Wyoming; 4/ Idaho and Oregon; 5/ California.

6/ United States Department of Agriculture, National Agriculture Statistical Service, Acreage, June 2013; 7/ United States Department of Agriculture, Economic Research Service, *Sugar and Sweetener Outlook*; 8/ Sugar from desugared molasses, not shown in table, is 396,597 tons.

Table 5 - U.S. sugarbeet and beet sugar area, yield, and production -- sugarbeet crop year and sugar fiscal year

Year	Planted (1,000 acres)	Harvested (1,000 acres)	Harvested- to-planted ratio (Percent)	Yield (Tons/acre)	Beets (1,000 tons)	Sugar recovery (Percent)	Sugar yield (Tons/acre)	Beet sugar (1,000 tons, raw value)	Beet sugar: Oct/Sept fiscal year (1,000 tons, raw value)
September/August crop year except where noted									
2006/07	1366.2	1303.6	95.42	26.13	34,064	14.85	3.88	5,057	5,008
2007/08	1268.8	1246.9	98.27	25.53	31,834	15.22	3.89	4,846	4,721
2008/09	1090.7	1004.5	92.10	26.76	26,881	15.20	4.07	4,087	4,214
2009/10	1185.8	1148.5	96.85	25.93	29,783	14.97	3.88	4,457	4,575
2010/11	1171.9	1156.1	98.65	27.71	32,034	15.29	4.24	4,897	4,663
2011/12	1232.8	1213.2	98.41	23.82	28,896	15.29	3.64	4,419	4,900
2012/13 1/	1230.1	1204.2	97.89	29.26	35,236	15.40	4.51	5,426	5,100
2013/14 1/	1207.6	1182.7	97.94	26.63	31,496	15.53	4.14	4,891	4,890

1/ Forecast.

Source: United States Department of Agriculture, Economic Research Service, *Sugar and Sweetener Outlook*.

Table 6 -- Sugar and Sweetener Outlook projections of sugarcane and cane sugar production for 2013/14

State	Area harvested for sugar (1,000 acres)	Yield (ton per acre)	Sugarcane (1,000 tons)	Recovery (percent)	Raw sugar (1,000 tons, raw value)	Sugar yield (tons per acre)
Florida	396.0	36.9	14,536.0	12.6	1,833.0	4.63
Louisiana	411.2	30.3	12,451.9	12.8	1,600.0	3.89
Texas	35.2	34.5	1,214.3	11.5	140.0	3.97
Hawaii	17.2	80.8	1,392.4	12.9	180.0	10.44
Total	859.7 [†]	34.4	29,594.6 [†]	12.7	3,753.0	4.37

Source: United States Department of Agriculture, Economic Research Service, *Sugar and Sweetener Outlook*.

U.S. Sugar: Deliveries and Ending Stocks

Contrary to a pessimistic industry view, data reveal that U.S. sugar deliveries continue to show strong performance in 2012/13. Beet sugar deliveries through May (8th month of the fiscal year) have totaled 3.122 million STRV, up 6.2 percent compared with the corresponding period last year. Since 1991/92, this year's 8-month total has only been surpassed once, in 2007/08, and only by some 20,000 STRV. Cane sugar deliveries through May have totaled 4.225 million STRV, up 1.6 percent over last year. The cane sugar total is higher than for any corresponding cumulative month total since 1991/92. Direct consumption sugar (DCI) imported by entities not required to report to the USDA is about the same as last year, but this data series is often volatile on a month-to-month basis. Nonetheless, the USDA expects DCI to be about the same or slightly above last year.

Table 7 shows a trend model used by the *Sugar and Sweetener Outlook* to project sugar deliveries for human use. Trend analysis supports a 2012/13 delivery estimate of 11.470 million STRV, up 70,000 STRV from last month. The projection for 2013/14 is 11.580 million STRV, a year-over-year increase of 110,000 STRV and 20,000 STRV more than last month's forecast.

Table 7 -- Sugar and Sweetener Outlook July 2013 projection model of U.S. sugar deliveries for human consumption in fiscal years 2013 and 2014

Model coefficients

	Symbols	Total deliveries (I)	Beet deliveries (II)	Cane deliveries (III)	Direct Cons. Imports (IV) Residual = I - (II+III)
Constant	A	783,180	406,700	548,431	
Shifter	B	-87,607	0	33,976	
Trend (value in FY 2013)	C	15,555	0	0	
Beet deliveries	D	0	0	-0.1944	
Oct	E	0	0	0	
Nov	F	-87,128	-42,512	-23,815	
Dec	G	-193,534	-84,734	-91,294	
Jan	H	-187,047	-62,475	-99,762	
Feb	I	-194,054	-65,067	-102,351	
Mar	J	-66,749	-21,884	-19,738	
Apr	K	-122,340	-38,723	-62,838	
May	L	-80,614	-17,707	-33,212	
Jun	M	-56,947	0	-19,209	
Jul	N	-72,738	-18,211	-35,548	
Aug	O	0	0	0	
Sept	P	0	0	0	

FY 2013: Model projections of monthly deliveries: total, beet sugar, cane sugar, and direct consumption imports (short tons, raw value).

Delivery months	Formula	Total deliveries (I)	Beet deliveries (II)	Cane deliveries (III)	Direct Cons. Imports (IV) 1/
Oct	A+B+C+D*(II)+E	1,044,236	451,422	512,609	80,205
Nov	A+B+C+D*(II)+F	1,034,596	385,218	521,274	128,104
Dec	A+B+C+D*(II)+G	742,149	315,055	414,213	12,881
Jan	A+B+C+D*(II)+H	921,151	383,590	465,350	72,211
Feb	A+B+C+D*(II)+J	888,576	368,676	423,153	96,747
Mar	A+B+C+D*(II)+J	892,931	398,461	480,983	13,487
Apr	A+B+C+D*(II)+K	956,251	413,201	458,960	84,090
May	A+B+C+D*(II)+L	967,719	406,008	499,494	62,217
Jun	A+B+C+D*(II)+M	980,846	406,700	484,151	89,995
Jul	A+B+C+D*(II)+N	965,055	388,490	471,350	105,215
Aug	A+B+C+D*(II)+O	1,037,793	406,700	503,359	127,734
Sept	A+B+C+D*(II)+P	1,037,793	406,700	503,359	127,734
FY 2013: Total projected deliveries	Sum	11,469,096	4,730,221	5,738,256	1,000,619

FY 2014: Model projections of monthly deliveries: total, beet sugar, cane sugar, and direct consumption imports (short tons, raw value).

Delivery months	Formula	Total deliveries (I)	Beet deliveries (II)	Cane deliveries (III)	Direct Cons. Imports (IV) 1/
Oct	A+B+C+D*(II)+E	1,053,349	406,700	503,359	143,289
Nov	A+B+C+D*(II)+F	966,221	364,188	487,807	114,226
Dec	A+B+C+D*(II)+G	859,814	321,966	428,535	109,314
Jan	A+B+C+D*(II)+H	866,302	344,225	415,740	106,337
Feb	A+B+C+D*(II)+J	859,294	341,633	413,655	104,006
Mar	A+B+C+D*(II)+J	986,600	384,816	487,875	113,909
Apr	A+B+C+D*(II)+K	931,009	367,977	448,048	114,984
May	A+B+C+D*(II)+L	972,735	388,993	473,589	110,153
Jun	A+B+C+D*(II)+M	996,402	406,700	484,151	105,551
Jul	A+B+C+D*(II)+N	980,610	388,490	471,350	120,770
Aug	A+B+C+D*(II)+O	1,053,349	406,700	503,359	143,289
Sept	A+B+C+D*(II)+P	1,053,349	406,700	503,359	143,289
FY 2014: Total projected deliveries	Sum	11,579,033	4,529,090	5,620,828	1,429,116

1/ Calculated as a residual.

Forecast: FY 2013 and FY 2014.

Source: United States Department of Agriculture, Economic Research Service, *Sugar and Sweetener Outlook*.

Ending stocks are estimated/projected as the difference between total supply and total use (table 8). For 2012/13, additional import supply (mainly from Mexico, but with some offset from lower TRQ entries) is more than offset by the increase in deliveries. Ending stocks are estimated lower by over 12,000 STRV at 2.219 million STRV. The implied stocks-to-use ratio at 18.8 percent is 0.2 percentage points lower than estimated last month.

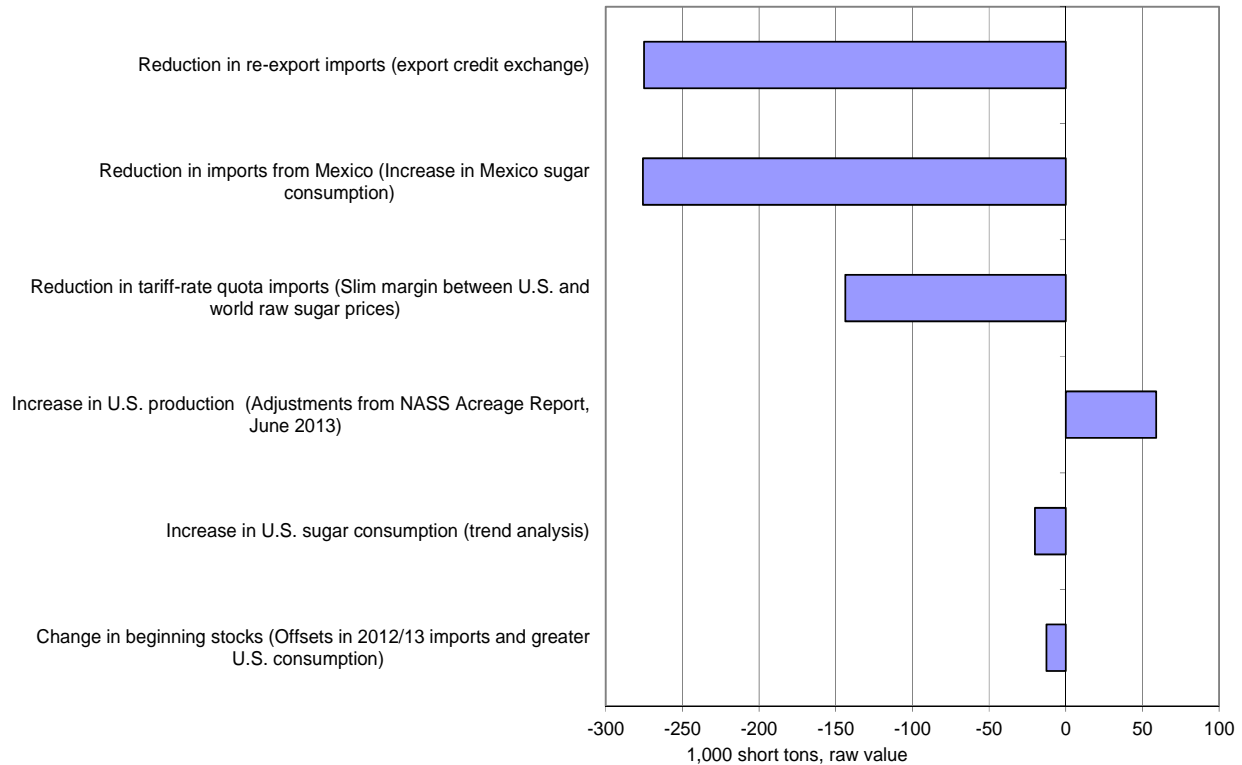
Ending stocks for 2013/14 are projected much lower than last month at 2.013 million STRV, a decrease of 667,560 STRV. The stocks-to-use ratio is 16.8 percent, down from the 22.4 percent projected last month. Figure 1 graphically illustrates the components underlying the reduction. The two chief factors, nearly equal in predicted effect, are the reductions from lower re-export imports and imports from Mexico. As explained below, lower Mexican imports stem from lower Mexican production and increased Mexican sugar consumption due to much lower domestic prices. TRQ imports are projected lower as well, due to the continuation of narrow margins between U.S. and world sugar prices. There are smaller adjustments from increased production, more deliveries, and lower beginning stocks.

Table 8 -- U.S. sugar: supply and use, by fiscal year (Oct./Sept.)

Items	2011/12	2012/13	2013/14	2011/12	2012/13	2013/14
	1,000 short tons, raw value			1,000 metric tons, raw value		
Beginning stocks	1,378	1,985	2,219	1,250	1,800	2,013
Total production	8,488	9,015	8,643	7,700	8,178	7,841
Beet sugar	4,900	5,100	4,890	4,446	4,627	4,436
Cane sugar	3,588	3,915	3,753	3,255	3,552	3,405
Florida	1,828	1,866	1,833	1,658	1,693	1,663
Louisiana	1,438	1,700	1,600	1,305	1,542	1,451
Texas	150	169	140	136	153	127
Hawaii	172	180	180	156	163	163
Total imports	3,632	3,024	3,116	3,295	2,743	2,827
Tariff-rate quota imports	1,883	989	1,122	1,709	897	1,018
Other Program Imports	664	125	125	602	113	113
Non-program imports	1,085	1,910	1,869	984	1,733	1,696
Mexico	1,071	1,900	1,859	972	1,724	1,686
Total Supply	13,498	14,024	13,978	12,245	12,722	12,680
Total exports	269	200	200	244	181	181
Miscellaneous	-69	0	0	-63	0	0
Deliveries for domestic use	11,313	11,605	11,765	10,263	10,528	10,673
Transfer to sugar-containing products for exports under reexport program	140	100	150	127	91	136
Transfer to polyhydric alcohol, feed	33	35	35	30	32	32
Deliveries for domestic food and beverage use	11,141	11,470	11,580	10,107	10,405	10,505
Total Use	11,513	11,805	11,965	10,445	10,709	10,854
Ending stocks	1,985	2,219	2,013	1,800	2,013	1,826
Stocks-to-use ratio	17.238	18.79	16.82	17.24	18.79	16.82

Source: United States Department of Agriculture, WASDE, and Economic Research Service, *Sugar and Sweetener Outlook*.

Figure 1
Component factors in reduction of projected 2013/14 sugar stocks in July 2013 WASDE



Source: United States Dept. of Agriculture, WASDE and Economic Research Service, *Sugar and Sweetener Outlook*.

A stocks-to-use ratio of 16.8 percent would normally be associated with a price level exceeding the minimum incentive price to forfeit sugar under loan to the CCC; however, U.S. pricing relationships are different than the patterns prevalent before the full implementation of the sweetener provisions of the North American Free Trade Agreement (NAFTA) in January 2008. A sign of reduced forfeiture risk would be expected in any future widening of the gap between U.S. and world sugar prices.

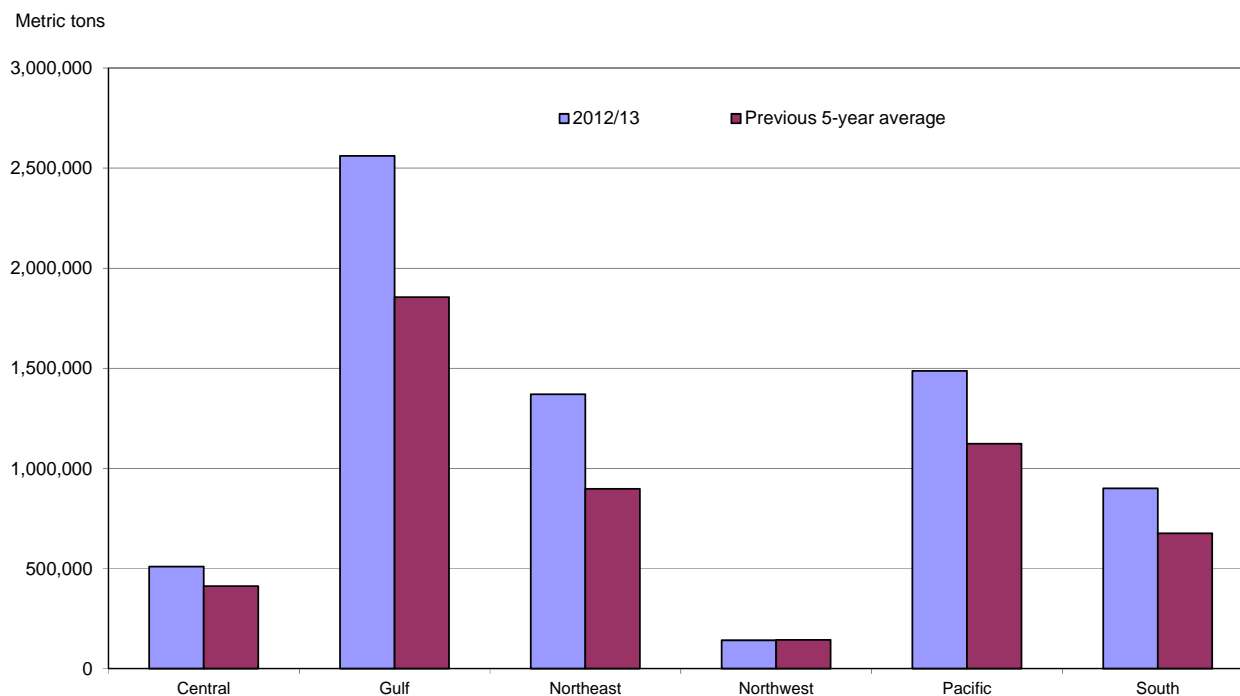
Mexico Sugar and High Fructose Corn Syrup

Comite Nacional Para El Desarrollo Sustentable de la Caña de Azucar (Conadesuca) in Mexico reports production through July 6 (week 40) at 6.970 million mt from a sugarcane crop of 61,445,000 mt harvested from 779,516 hectares, for a yield of 78.8 mt per hectare. The USDA estimates final 2012/13 Mexico sugar production at 6.990 million metric tons (mt), an increase of 150,000 mt from June based on an increased harvested area estimate.

Sugar recovery is estimated at 11.34 percent. Recovery through mid- to late-May had been estimated at 11.41 percent. Such a large decline at the end of the season is unusual. It may be that the large decrease in Mexican sugar prices (estandar prices down 28 percent year-over-year in June) may have encouraged growers to harvest cane at the tail-end of the season that otherwise would have been left over for the next season. In order to maintain revenue, lower grower prices could only be countered by cutting more cane. The effect on next season would be for less production through either lower yields or lower harvested area.

Figure 2 shows region sugar production levels for 2012/13 compared with the corresponding levels averaged for the preceding 5 years. Except for the small growing region in the Northwest, production is much increased: 52.6 percent in the Northeast (where production last year was particularly weak due to drought); 38.1 percent in the Gulf area

Figure 2
Mexico sugar production in 2012/13 compared with previous 5-year average, by region



Source: Conadesuca.

(mainly Veracruz); 33.3 percent in the South; 32.3 percent in the Pacific region; and 23.7 percent in the Central region.

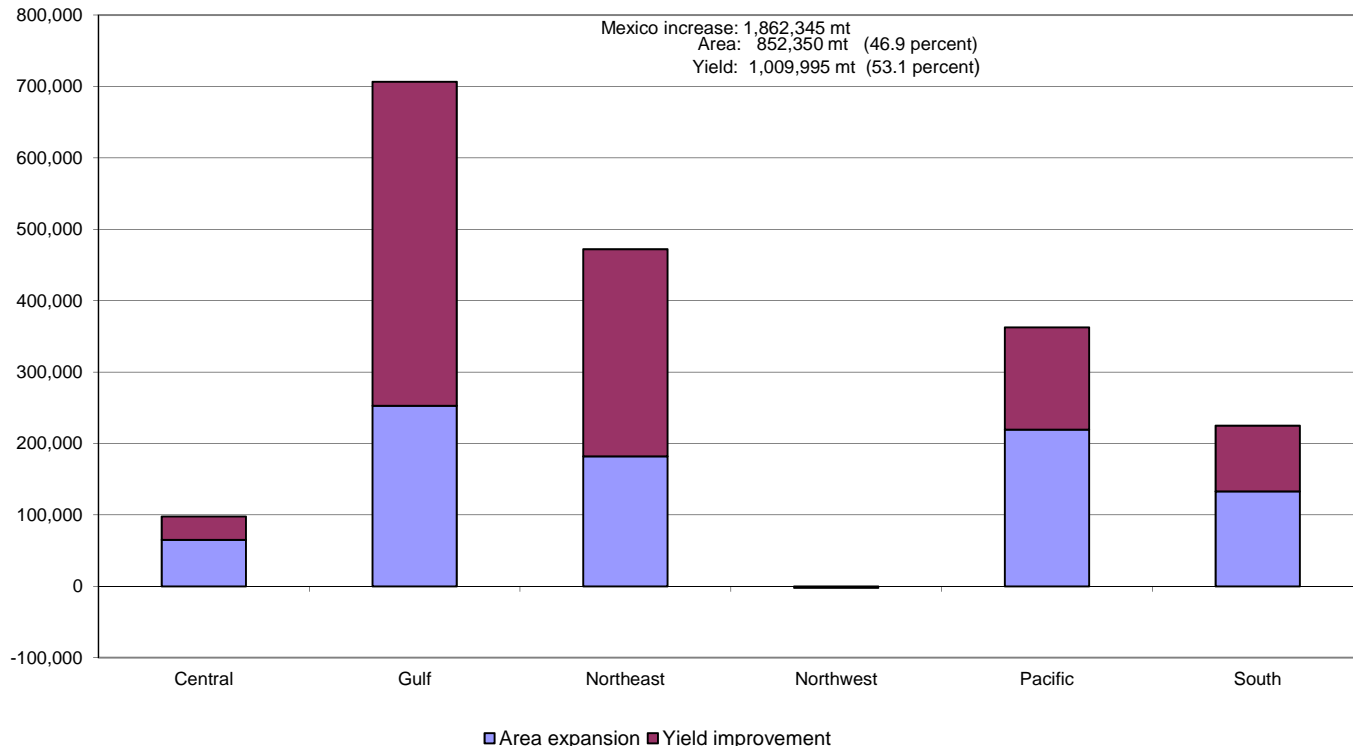
The overall increase in 2012/13 sugar production over the preceding 5 years is 1.862 million mt. The *Sugar and Sweetener Outlook* estimates that 46.9 percent of the increase, or 852,350 mt, was due to the increase in harvested area and the remainder, or 1,009,995 mt, was due to increased sugar yield. Figure 3 shows regional distribution of the area and yield effects. Yield effects were strongest in the two regions showing the greatest production gain: in the Northeast at 61.5 percent and the Gulf at 64.2 percent.

The USDA has not changed its forecast of Mexico 2013/14 sugar production—it remains at 5.887 million mt. The USDA expects a return to normal yields, likely reducing production by a million mt, and a small reduction in area harvested due to over-harvesting this year by desperate-for-revenue growers. Conadesuca has not made its forecast for 2012/13 and is unlikely to do so until the fall.

Conadesuca performs a full audited survey of sugar held in stocks at the end of May. This survey is considered definitive because of its role in calculating grower pricing returns through the reference price mechanism. From this more accurate estimate of stocks, along with reliable production and export data, Conadesuca has a far clearer estimate of sugar delivered to domestic consumers.

Figure 3
Increase in 2012/13 Mexico sugar production through week 40 attributable to area expansion and yield improvement, relative to previous 5-year period, by region

Metric tons (mt)



Source: Conadesuca.

The cumulative estimate of domestic sugar deliveries through the end of May is 3.029 million mt, about 8.8 percent more than the corresponding period last year (fig. 4). High Fructose Corn Syrup (HFCS) consumption (measured as a residual between the sum of production and imports less exports) is 1.042 million mt, dry basis—down 7.5 percent from last year. Up until the publication of the end-of-May survey, Conadesuca had been showing domestic sugar deliveries at about the same level as last year and HFCS deliveries slightly less than last year. It would seem consistent that sugar consumption would be increasing with the large decline in sugar prices. The implied increase in sugar deliveries more than offsets declines in HFCS for an overall increase in sweetener consumption of 4.1 percent.

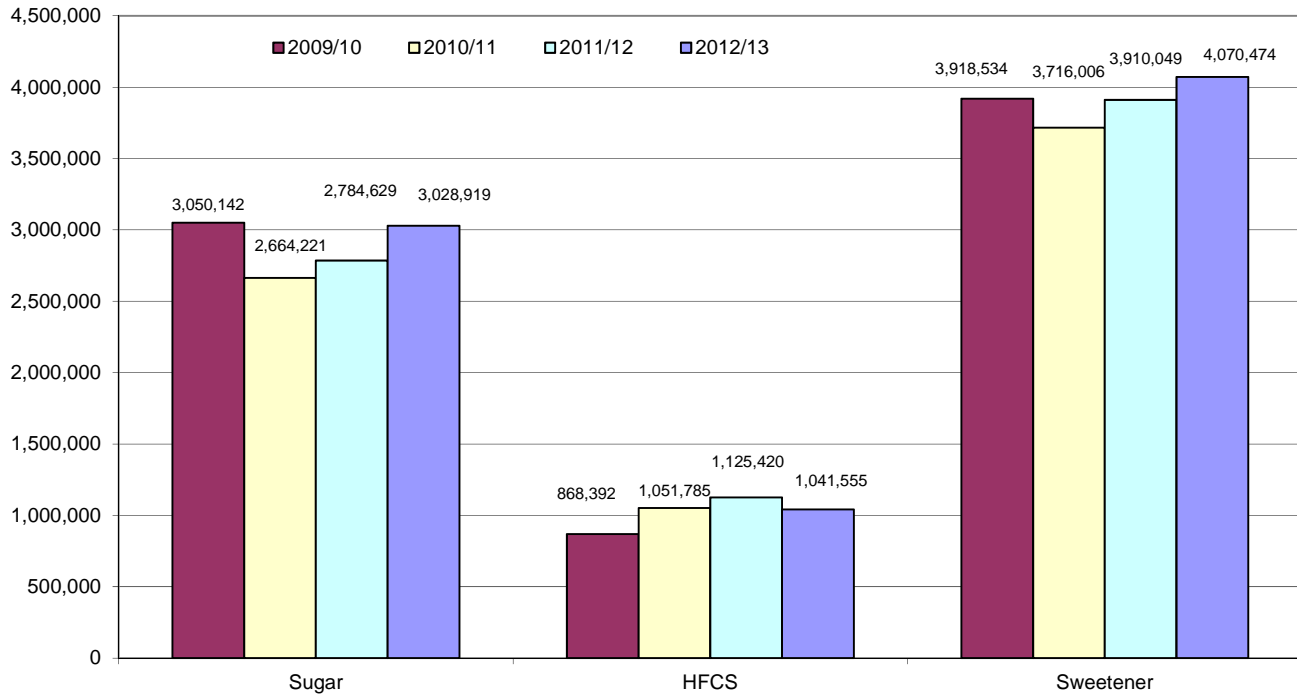
The USDA increased its estimate of 2012/13 sugar consumption by 235,000 mt to 4.435 million mt. The increase was based on analysis of Conadesuca estimates of October through May consumption since 2007/08 relative to the final-year consumption estimates. The weighted proportion was applied to this year and result was the 4.435 million mt estimate. The USDA lowered its estimate of 2012/13 HFCS consumption to 1.590 million mt, a reduction of 45,000 mt from last month.

The forecast for 2013/14 is 4.500 million mt. The forecast is based on a constant per capita sweetener consumption level, along with unchanged HFCS consumption (table 9).

The USDA increased its estimate of 2012/13 exports by 94,000 mt to 1.811 million mt. This increase matches the increase in U.S. imports from Mexico discussed earlier. Ending stocks are calculated as the difference between total supply and total use at 1.597 million mt. This implies an ending stocks-to-consumption ratio of 34.0 percent, lower than estimated last month (40.1 percent) but still some 12 percentage points above the optimal 22-percent level.

Figure 4
Sweetener consumption in Mexico, 7 months into marketing year, 2009/10 - 2012/13

Metric tons, tel quel



Source: Conadesuca.

The USDA believes that reduced production in 2013/14 (over a million mt relative to 2012/13) and increased consumption (240,000 mt relative to that projected last month) will allow a return to optimal stockholding in Mexico. The 22.0-percent ratio applied to consumption implies ending stocks at 990,000 mt.

Exports in 2013/14 are projected residually at 1.701 million mt. The USDA did not change its forecast of 110,000 mt going to extra-NAFTA destinations. This implies an export forecast to the United States of 1.591 million mt, a reduction of 236,000 mt from last month, or 276,001 STRV.

Table 9 -- Mexico sugar production and supply, forecast for 2012/13 and 2013/14

2012/13 Market year (Oct/Sept)	2012/13	2013/14
	1,000 metric tons, actual weight	
Beginning stocks	966	1,507
Production	6,990	5,887
Imports	137	137
Imports for consumption	14	20
Imports for sugar-containing product exports (IMMEX) 1/	123	116.934
Total supply	8,093	7,530
Disappearance		
Human consumption	4,435	4,500
For sugar-containing product exports (IMMEX)	340	340
Total	4,775	4,840
Exports	1,811	1,701
Exports to the United States & Puerto Rico	1,626	1,591
Exports to other countries	185	110
Total Use	6,586	6,541
Ending stocks	1,507	990
	1,000 metric tons, raw value	
Beginning stocks	1,024	1,597
Production	7,409	6,240
Imports	145	145
Imports for consumption	15	21
Imports for sugar-containing product exports (IMMEX)	130	124
Total supply	8,578	7,982
Disappearance		
Human consumption	4,701	4,770
For sugar-containing product exports (IMMEX)	360	360
Total	5,062	5,130
Exports	1,920	1,803
Exports to the United States & Puerto Rico	1,724	1,687
Exports to other countries	196	117
Total use	6,981	6,934
Ending stocks	1,597	1,048
Stocks-to-Human Consumption (percent)	34.0	22.0
Stocks-to-Use (percent)	22.9	15.1
High Fructose Corn Syrup (HFCS) Consumption (dry weight)	1,590	1,590

Source: U.S. Department of Agriculture, WASDE and Economic Research Service, *Sugar and Sweeteners Outlook*; Conadesuca.

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

Maple Syrup

The 2013 U.S. maple syrup season achieved record production of 3.25 million gallons, a 70-percent jump from only 1.9 million gallons in 2012. All maple-producing States registered double-digit increases in syrup production compared with 2012's crop. A longer season of sap flow raised syrup yield per tree tap by 58 percent, from 0.195 gallon per tap in 2012 to 0.308 gallon per tap in 2013. The longer season of sap flow this year is attributed to cool weather in early spring that delayed the budding of maple trees. Over the average tapping season length of 37 days in 2013, 1.066 ounces of syrup were produced per tap per day. This amount is up from 1.04 ounces on average for the 2012 crop. In addition to the 13 more tapping days that boosted sap flow, 800,000 more tree taps were reported this past season.

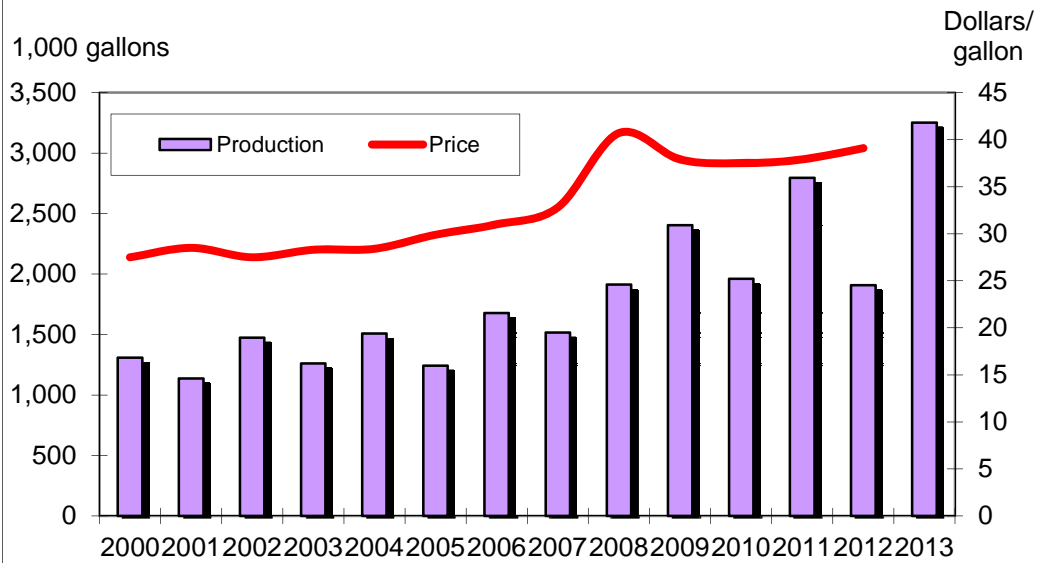
The Midwestern States of Ohio, Michigan, and Wisconsin increased their collective number of tree taps by 23,000, or 16 percent, this past season. Together, New York and Pennsylvania had 212,000 more taps this year than last. And the New England States raised their tap number by 358,000, or 6 percent. Furthermore, all the States had at least double-digit gains in syrup yield per tap as average syrup production surged over this year's longer tapping season. The New England States as a group raised crop yield by 50 percent due largely to 12 more tapping days, 43 percent longer than last year. The length of this year's maple tapping season was 14.5 days longer in the New York-Pennsylvania region, which raised yield by 43 percent. The 128-percent yield gain in the Midwestern States is attributed to 14.7 more tapping days. Overall, the 2013 tapping season lasted 37 days on average compared with 24 days in 2012.

Due to last year's much lower sap flow and syrup production, the average price of syrup produced in 2012 was \$39.10 per gallon, up 3 percent from \$37.90 in 2011. Average syrup prices in New York-Pennsylvania and the Midwest were both up, in contrast to a slight decline in New England. These price increases were moderated by 111,600 more gallons of syrup imported from Canada in 2012 than in 2011. Although syrup prices were 3 percent higher on average for the 2012 crop, all States experienced lower production values as sap flow declined sharply. The overall value of the 2012 syrup crop dropped by nearly 30 percent from the preceding crop—from \$106 million in 2011 to \$74.6 million in 2012. Thus, the production value per tap was likewise lower in each State, falling on average 31 percent compared with the 2011 crop. The average value per tap was \$7.63 for the 2012 crop, down from the record \$11 per tap for the 2011 crop.

While the average retail price for the 2012 maple crop was up 4.2 percent and the wholesale price was up 5.7 percent, the average bulk price was up by only 1.8 percent. The average bulk price in 2012 was \$30.31 per gallon, up from \$29.77 per gallon during the 2011 marketing year. The retail price rose 4.2 percent to \$47.59 per gallon, and wholesale prices were up 5.7 percent to \$41 per gallon. Bulk sales accounted for 64 percent of total U.S. production value for the 2012 syrup crop. The New England States' bulk sales were 76 percent of total sales, the highest share among the production regions. Fifty-one percent of New York's and Pennsylvania's total sales were bulk sales in 2012, compared with only 32 percent of the Midwestern States' sales.

After adding 4.5 million gallons of imported Canadian maple syrup to the 1.9 million gallons of domestic syrup production and subtracting 966,000 gallons of exports, U.S. syrup consumption dropped from almost 6 million gallons in the 2011 marketing year to less than 5.5 million gallons in 2012. Total syrup supply fell by 774,400 gallons or 11 percent last year after rising by almost 1 million gallons in 2011. In per household terms, syrup consumption was down from 6.6 ounces in 2011 to 6 ounces in 2012, which cost each household \$1.83 on average. Consumption of maple syrup over the past two decades was highest in 2007 at 8.1 ounces per household. The import share of U.S. syrup consumption was close to 83 percent in 2012, up from 74 percent in 2011.

Maple syrup production is up sharply in 2013



Source: United States Dept. of Agriculture, National Agriculture Statistical Service, Maple Syrup.

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Data

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

Related Websites

Sugar and Sweeteners Outlook <http://www.ers.usda.gov/Publications/SSS/>

WASDE <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documented=1194>

Sugar Briefing Room, <http://www.ers.usda.gov/briefing/Sugar/>

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