



# Sugar and Sweeteners Outlook

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## Sugar May 2012

U.S. sugar supply for fiscal year (FY) 2013 is projected down 2.4 percent from FY 2012, as lower imports more than offset higher production and beginning stocks. Higher beet sugar production reflects higher area and trend yields, while cane sugar production is nearly unchanged from a year earlier. Imports under the tariff rate quota (TRQ) reflect the minimum of U.S. commitments to import raw and refined sugar and the projected raw sugar shortfall. The Secretary of Agriculture will establish the TRQ at a later date. Imports from Mexico are up, mainly due to higher production in Mexico. Total U.S. sugar use is up 1 percent.

For FY 2012, U.S. sugar supplies are increased 978,000 short tons, raw value, from last month. Beet sugar production is increased to reflect higher than normal early harvest of sugarbeets, while the increase in Florida cane sugar matches processor projections. Higher imports reflect the announced increase in the U.S. TRQ and higher imports from Mexico. Mexico's sugar exports are increased, following reductions in domestic use and ending stocks.

## **U.S. Sugar**

On May 10, 2012, the U.S. Department of Agriculture (USDA) released its latest supply and use estimates for fiscal year (FY) 2012 and first projections for FY 2013 in the *World Agricultural Supply and Demand Estimates* (WASDE) report. This month's WASDE incorporated implications for the U.S. sugar supply from certain policy developments announced in April.

### ***Sugar Policy Developments and Implications for Imports***

On April 19, 2012, the USDA announced an increase in the FY 2012 Overall Allotment Quantity (OAQ) of the Sugar Marketing Allotment program to 9,507,250 short tons, raw value (STRV). At the same time, the USDA also announced an increase of 420,000 STRV in the FY 2012 raw sugar tariff-rate quota (TRQ).

The new OAQ represents 85 percent of the projection of deliveries for human consumption published in the April 2012 WASDE report (11,185,000 STRV). The increase is split in accordance with the program: 54.35 percent/45.65 percent between the beet and cane sugar sectors, or 27,719 and 23,281 STRV, respectively.

The USDA, after evaluating each sugarbeet processor's ability to market its full allocation, decided not to reassign beet sugar allotment to imports at this time due to continuing uncertainties in forecasting FY 2012 beet sugar production. However, beet sugar marketing allocations were transferred from beet sugar processors with surplus allocation to those with deficit allocation.<sup>1</sup>

The USDA determined that all sugarcane processors have surplus allocations of the FY 2012 cane sugar marketing allotment. Therefore, the 420,000 STRV reassignment to the raw sugar TRQ increase reduced all sugarcane States' sugar-marketing allotments. The total cane sector allotment decreased in net from 4,316,778 to 3,920,060 STRV. The new cane State allotments are Florida—1,926,658 STRV; Louisiana—1,554,521 STRV; Hawaii—268,135 STRV; and Texas—170,745 STRV. The FY 2012 sugar-marketing allotment program will not prevent any domestic sugarcane processors from marketing all of their FY 2012 sugar supply. Due to uncertainties that still exist in forecasting each company's and sector's FY 2012 sugar production, further reassignments are possible.

The USDA first established the FY 2012 TRQ for raw cane sugar at 1,231,497 STRV (1,117,195 metric tons raw value (MTRV)) on July 30, 2011. This amount is the minimum to which the United States is committed under the World Trade Organization (WTO) Uruguay Round Agreements. Pursuant to Additional U.S. Note 5 to Chapter 17 of the U.S. Harmonized Tariff Schedule (HTS) and Section 359k of the Agricultural Adjustment Act of 1938, as amended, the Secretary of Agriculture increased the quantity of raw cane sugar eligible for the TRQ by 420,000 STRV (381,018 MTRV). With this increase, the overall FY 2012 raw sugar TRQ became 1,651,497 STRV (1,498,213 MTRV). Raw cane sugar under this quota must be accompanied by a certificate for quota eligibility (CQE) and may be entered until September 30, 2012.

On April 20, 2012, the Office of the United States Trade Representative (USTR) announced the country-specific in-quota allocations of additional FY 2012 TRQ for imported raw cane sugar as well as country-specific reallocations of the FY 2012 in-quota quantity of the TRQ for imported raw cane sugar.<sup>2</sup> The 420,000 STRV raw sugar TRQ increase, when combined with an estimated reallocation of 70,000 STRV of the raw sugar shortfall, was at the time expected to yield a net increase in raw sugar imports of 450,000 STRV after normal TRQ slippage, because not all supplying countries will fill their import quota allocations.

At the time of the announcement, the TRQ increase was not expected to increase FY 2012 domestic sugar supplies to a level that the USDA considers adequate. The USDA used an ending stocks-to-use ratio of 14.5 percent in

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<sup>1</sup>[http://www.fsa.usda.gov/Internet/FSA\\_Federal\\_Notices/sugar\\_allot\\_04\\_12.pdf](http://www.fsa.usda.gov/Internet/FSA_Federal_Notices/sugar_allot_04_12.pdf)

<sup>2</sup><http://www.ustr.gov/about-us/press-office/press-releases/2012/april/ustr-announces-revised-fiscal-year-2012-tariff-rate>.

estimating the “reasonable ending stocks” parameter for the most recent FY 2012 sugar market quarterly review mandated by statute. Citing uncertainties about FY 2012 Mexican imports, domestic refined and raw sugar demand, the early sugarbeet crop, and other market factors, the USDA did not increase imported supplies further. The USDA re-evaluates market conditions in June, as required by statute. It is possible that the TRQ will be increased at that time to bring the expected FY 2012 ending stocks-to-use ratio to within the traditional range that the USDA considers adequate, i.e., 13.5 to 15.5 percent.

On April 15, 2012, it was announced that the U.S.-Colombia Trade Promotion Agreement will take effect on May 15, 2012.<sup>3</sup> The U.S.-Colombia trade agreement’s implementing bill, approved on October 12, 2011, authorized the President of the United States to exchange notes with Colombia for the provision of the entry into force at such time as it was determined that Colombia had taken measures necessary to comply with provisions of the Agreement. According to the USTR press release, on May 15, over 80 percent of U.S. exports of consumer and industrial products to Colombia—including agricultural and construction equipment, building products, aircraft and parts, fertilizers, information technology equipment, medical scientific equipment, and wood—will become duty-free. In addition, more than half of U.S. exports of agricultural commodities to Colombia—including wheat, barley, soybeans, high-quality beef, bacon, and almost all fruit and vegetable products—will immediately become duty-free. As originally published in the January 2012 *Sugar and Sweeteners Outlook*, table 1 outlines the U.S. import provisions of sugar, syrups, and sugar-containing products under the Agreement. In the first year of the Agreement, calendar year 2012, 50,000 metric tons of sugar will be allowed to enter the United States. The amount increases to 50,750 metric tons in 2013.

### **Beet Sugar Production**

Beet sugar production for FY 2012 is estimated at 4.750 million STRV, up from 4.655 million STRV last month. Beet sugar production for FY 2013 is projected at 5.045 million. These new production levels are derived from a forecast of 2012/13 September/August crop year sugarbeet and beet sugar production detailed in tables 2 and 3.

Table 1 -- Imports of sugar and syrup goods and sugar-containing products under the U.S. - Colombia Free Trade Agreement (FTA) under Tariff-rate quotas (TRQs)

Year	Quantity (Metric tons)	Notes
TRQ - (quota amount subject to calendar trade year surplus).		
Year Quantity ----- Notes -----		
Covers imports under the following HTS:		
1	50,000	AG17011250, AG17011350, AG17011450, AG17019130, AG17019148, AG17019158, AG17019950, AG17022028, AG17023028,
2	50,750	AG17024028, AG17026028, AG17029020, AG17029058, AG17029068, AG17049068, AG17049078, AG18061015,
3	51,500	AG18061028, AG18061038, AG18061055, AG18061075, AG18062073, AG18062077, AG18062094, AG18062098,
4	52,250	AG18069039, AG18069049, AG18069059, AG19012025, AG19012035, AG19012060, AG19012070, AG19019054,
5	53,000	AG19019058, AG21011238, AG21011248, AG21011258, AG21012038, AG21012048, AG21012058, AG21039078,
6	53,750	AG21069046, AG21069072, AG21069076, AG21069080, AG21069091, AG21069094, and AG21069097.
7	54,500	The quantities of goods under the following tariff items shall be entered on a raw-value equivalent basis:
8	55,250	AG17011150, AG17011250, AG17019130, AG17019950, AG17029020, and AG21069046.
9	56,000	In any year, duty-free tariff treatment for Colombia shall be accorded to the lesser of (i) quantity set out in the table,
10	56,750	or (ii) a quantity equal to the amount by which Colombia's exports to all destinations exceeds its imports from all sources
11	57,500	("trade surplus") for goods classified under the following subheadings: HS1701.12, HS 1701.13, HS1701.14,HS1701.91, HS1701.99,
12	58,250	HS1702.40, and HS1702.60, except that Colombia's exports to the United States of goods classified under subheadings
13	59,000	HS1701.12, HS1701.13, HS1701.14,HS1701.91, and HS1701.99 and its imports of originating goods of the United States classified
14	59,750	under HS1702.40 and HS1702.60 shall not be included in the calculation of its trade surplus. Colombia's trade surplus
15	60,500	shall be calculated using the most recent annual data available.

After year 15, the in-quota quantity grows at 750 MT per year.

Source: Office of the U.S. Trade Representative (USTR).

<sup>3</sup><http://www.ustr.gov/about-us/press-office/press-releases/2012/april/united-states-colombia-set-date-entry-force-us-colom>.

Table 2 -- Sugar and Sweetener Outlook projected sugarbeet production for 2012/13

	Great Lakes 1/	Red River Valley 2/	Great Plains 3/	Northwest 4/	Southwest 5/	Total
Planted area (acres) 6/	154,000	710,000	158,300	194,000	25,000	1,241,300
Harvested area (acres) 7/	152,850	684,100	149,610	190,130	24,760	1,201,450
Yield (tons/acre) 7/	25.74	25.40	26.09	33.70	42.22	27.19
Sugarbeet production (tons) 7/	3,933,700	17,374,590	3,903,510	6,406,720	1,045,230	32,663,750

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

6/ USDA, NASS, *Prospective Plantings*; 7/ USDA, ERS, *Sugar and Sweeteners Outlook*.

Table 2 details sugarbeet production for five producing regions: Great Lakes (Michigan); Red River Valley (Minnesota, North Dakota); Great Plains (Colorado, Montana, Nebraska, Wyoming); Northwest (Idaho, Oregon), and Southwest (California). Harvested area is forecast by adjusting planted area forecasts from the National Agricultural Statistics Service (NASS) 2012 *Prospective Plantings* by the average of harvested-to-planted ratios since 2006/07. Regional yield trends from 2006/07 to 2011/12 are used to forecast 2012/13 yields. Sugarbeet yields across all regions except the Southwest increased in 2006/07 from previous periods due to the use of improved seed varieties that disease and pest resistance. Projected sugarbeet production is the product of yield and harvested area. National sugarbeet production is the sum from the regions: 32.664 million tons. The implied national yield is 27.19 tons/acre. These estimated parameters are the basis for forecasting until August, when NASS publishes its own forecasts in *Crop Production*.

Table 3 shows crop-year sugarbeet and beet sugar parameters since 2006/07, along with fiscal-year beet sugar production. The key variable is sugar yield per acre, estimated by a regression equation (table 3, footnote 2) that correlates it with trend and sugarbeet yield over 1980/81-2011/12. The forecast for 2012/13 is 4.24 tons/acre, tied with the record established in 2010/11. Implied beet sugar production for 2012/13 is 5.089 million STRV. Because of early planting in most sugarbeet regions, it is expected that an above-average portion of the crop will be harvested in September, the first full month of production. Assumptions about September beet sugar production are detailed in table 3, footnote 3. The result is to increase the FY 2012 production estimate and slightly reduce the FY 2013 production from the crop-year total to the levels indicated in the table.

### ***Cane Sugar Production***

The USDA increased its estimate of FY 2012 Florida cane sugar production to 1.825 million STRV based on the processors' estimate in USDA's Sweetener Market Data (SMD). This is the highest production level since FY 2004. Production levels in all years between FY2005-FY2011 have been below initial USDA forecasts due to unfortunate weather effects such as dry growing conditions, freezes, or hurricanes. FY 2012 marks a return to the normal weather conditions typically assumed by USDA at the beginning of the forecast season.

The USDA projects FY 2013 cane sugar production at 3.530 million STRV, a slight 10,000-STRV decrease from FY 2012. Because area harvested is not forecast by NASS until the end of June, current cane sugar projections assume the same area harvested for sugarcane as in the previous year. Florida production is expected to continue its return to trend in FY 2013. Assuming a sugarcane yield of 36.25 tons/acre implies a trend-following sugar yield of 4.71 STRV/acre, slightly below the estimated 4.78 STRV/acre for FY 2012. Florida sugar production is therefore projected at 1.800 million STRV in FY2013.

The USDA projects FY 2013 Louisiana cane sugar production at 1.400 million STRV, the same as for FY 2012. The USDA projects only marginal improvements in production for Texas and Hawaii—150,000 and 180,000 STRV, respectively.

Table 3 -- 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/ (1,000 tons, raw value)
September/August crop year except where noted									
2006/07	1366.2	1,303.6	95.42	26.13	34,064	14.85	3.88	5,057	5,008
2007/08	1268.8	1,246.9	98.27	25.53	31,834	15.22	3.89	4,846	4,721
2008/09	1090.7	1,004.5	92.10	26.76	26,881	15.20	4.07	4,087	4,214
2009/10	1185.8	1,148.5	96.85	25.93	29,783	14.97	3.88	4,457	4,575
2010/11	1171.9	1,156.1	98.65	27.71	32,034	15.29	4.24	4,897	4,663
2011/12 (est) 2/	1232.8	1,213.1	98.40	23.73	28,789	15.72	3.73	4,525	4,750
2012/13 (proj) 2/ 3/	1241.3	1,201.5	96.79	27.19	32,664	15.58	4.24	5,089	5,045

Source: USDA, ERS, Sugar and Sweetener Outlook.

1/ Beet sugar: Oct/Sept = Beet sugar: Sept/Aug - Beet sugar: Sept(t) + Beet sugar: Sept(t+1), where t = year.

2/ Sugar yield = 0.021785\*trend+32 + 0.130165\*sugarbeet yield; Adj R2 = 0.956; sample: 1980/81 - 2011/12.

3/ Beet sugar production: Sept (2011) = 226,884 tons ; projected Sept (2012) = 452,000 tons; projected Sept (2013) = 408,000 tons.

## Trade

On April 19, 2012, the Secretary of Agriculture announced an additional in-quota quantity of 420,000 STRV (381,018 MTRV) for the raw sugar TRQ for FY 2012. USTR also determined a reallocation of the minimum amount of the original TRQ for raw cane sugar from countries that stated that they would be unable to fill previously allocated FY 2012 raw sugar TRQ quantities. In all, USTR allocated a total of 480,628 STRV (436,018 MTRV).

With the April 15 announcement that the U.S.-Colombia Trade Promotion Agreement is to take effect on May 15, the USDA included Colombia's first-year sugar allocation of 55,116 STRV (50,000 MTRV) under the Agreement in its FY 2012 trade estimate.

Although the raw and refined sugar TRQs for FY 2013 have not yet been announced, the USDA projects them at minimum levels implied by existing international commitments to the WTO and at the allocated levels of existing Free Trade Agreements (FTAs). The projection in the May 2012 WASDE is, therefore, 1.283 million STRV (table 5). Projected shortfall is forecast at 165,347 STRV. Until the TRQ is announced, there is no projection for additional specialty sugar. This is mostly organic sugar, and its allocation for FY 2012 was set at 100,000 STRV in addition to the 1,825 STRV included in the minimum access quantity.

The USDA projects FY2013 imports from Mexico at 1.117 million STRV, about 13 percent above the estimate for FY 2012.

Other-program sugar imports, outside the sugar TRQ for FY 2013, are projected to total 450,000 STRV. Other USDA import programs include the Refined Sugar Re-export Program, the Sugar-Containing Products Program, and the Polyhydric Alcohol Program. High-tier tariff sugar imports and sugar in imported syrups are projected at 10,000 STRV. Sugar exports for FY 2012 are forecast at 250,000 STRV, the same as estimated for FY 2012. Most of these exports (about 80 percent) are expected to go to Mexico, where they are used in Mexico's product re-export (IMMEX) program. Almost all such sugar-containing products are expected to be exported to the United States.

## Deliveries and Ending Stocks

The pace to date of sugar deliveries for human consumption for the first half of FY 2012 (October through March) has been strong—about 2.2 percent greater than the pace in FY 2011 for the corresponding period. This pace has been sustained mainly by direct consumption imports, estimated at 514,461 STRV in Sweetener Market Data (SMD). This is about 110,000 STRV more than in the same period in the preceding year. Combined deliveries by domestic sugarbeet processors and cane sugar refiners, at 4.978 million STRV, are only at about the same level as the previous year – there has been no growth. As previous editions of this *Sugar and Sweeteners Outlook* have cautioned, direct consumption imports may be difficult to measure because estimation relies on the differencing of combined data from the U.S. Customs Service/ U.S. Census Bureau (total sugar imports) and SMD (imports by cane sugar refiners). Nonetheless, results from a U.S. sugar deliveries forecasting model maintained at the Economic

Research Service, which uses the same data as SMD, estimates FY 2012 deliveries at 11.3 million STRV and projects FY 2013 deliveries at 11.425 million STRV (table 6). These results have been incorporated into the May 2012 WASDE.

Ending stocks equal total sugar supply minus total use. The estimate for FY 2012 is 1.670 million STRV, implying an ending stocks-to-use ratio of 14.2 percent. Although this estimate is 7.4 percentage points above the April projection, there are still 6 months to go in the fiscal year and much could happen to undermine the estimates in the May WASDE. The ending stocks projection for FY 2013 is 1.220 million STRV. The implied ending stocks-to-use ratio is 10.3 percent.

Table 4 -- USDA estimate of sugar imports in FY 2012

	Metric tons, raw value	Short tons, raw value
<b>Raw sugar TRQ</b>	<b>1,117,195</b>	<b>1,231,497</b>
Less shortfall attributable to Mexico 1/ Less other shortfall	-65,000	-71,650
Plus FY 2011 TRQ entries in Oct. and Nov. 2011 Less FY 2012 TRQ entries in September 2011	79,906 -20,062	88,081 -22,115
Plus April 2012 increase	381,018	420,000
<b>Total raw sugar TRQ</b>	<b>1,493,057</b>	<b>1,645,813</b>
<b>Refined sugar TRQ</b>		
Allocation to Canada FY 2011 Canada sugar to enter FY 2012	12,050 17,535	13,283 19,329
Allocation to Mexico Less Mexican shortfall 1/		
Global FY 2011 Global sugar to enter FY 2012	8,294 111,078	9,143 122,443
Specialty Base Additional	1,656 90,718	1,825 100,000
<b>Total refined sugar TRQ</b>	<b>241,331</b>	<b>266,022</b>
<b>CAFTA/DR TRQ - calendar 2012</b>	<b>116,820</b>	<b>128,772</b>
CAFTA/DR FY 2011, likely to enter in FY 2012 CAFTA/DR FY 2012, forecast to enter in FY 2013 Other:	31,543 -15,000	34,770 -16,535
Singapore, Bahrain, Jordan Peru Colombia	21 2,000 50,000	23 2,205 55,116
<b>Total estimate TRQ entries</b>	<b>1,919,772</b>	<b>2,116,187</b>
<b>Mexico</b>	<b>900,000</b>	<b>992,080</b>
<b>Re-export program imports</b>	<b>498,952</b>	<b>550,000</b>
<b>Sugar syrups, high-tier</b>	<b>9,072</b>	<b>10,000</b>
<b>Total projected imports</b>	<b>3,327,796</b>	<b>3,668,267</b>

1/ Total entries from Mexico, quota and non-quota, reflected below.

Source: USDA, FAS.

Table 5 -- USDA estimate of sugar imports in FY 2013

	Metric tons, raw value	Short tons, raw value
<b>Raw sugar TRQ</b>	<b>1,117,195</b>	<b>1,231,497</b>
Less shortfall attributable to Mexico 1/ Less other shortfall	-150,000	-165,347
Additional Quota	0	0
<b>Total raw sugar TRQ</b>	<b>967,195</b>	<b>1,066,150</b>
<b>Refined sugar TRQ</b>		
Allocation to Canada	12,050	13,283
Allocation to Mexico Less Mexican shortfall 1/		
Global	8,294	9,143
Specialty Base	1,656	1,825
Additional	0	0
<b>Total refined sugar TRQ</b>	<b>22,000</b>	<b>24,251</b>
<b>CAFTA/DR TRQ - calendar 2013</b>	<b>121,740</b>	<b>134,195</b>
CAFTA/DR CY 2012, likely to enter in FY 2013	15,000	16,535
CAFTA/DR CY 2013, forecast to enter in FY 2014	-15,000	-16,535
Other:		
Singapore, Bahrain, Jordan	21	23
Peru	2,000	2,205
Colombia	50,750	55,942
<b>Total estimate TRQ entries</b>	<b>1,163,706</b>	<b>1,282,766</b>
<b>Mexico</b>	<b>1,013,360</b>	<b>1,117,038</b>
<b>Re-export program imports</b>	<b>408,233</b>	<b>450,000</b>
<b>Sugar syrups, high-tier</b>	<b>9,072</b>	<b>10,000</b>
<b>Total projected imports</b>	<b>2,594,371</b>	<b>2,859,804</b>

1/ Total entries from Mexico, quota and non-quota, reflected below.



Table 6 -- ERS Sugar and Sweetener Outlook projection model of U.S. sugar deliveries for human consumption for 2011/12 and 2012/13

<u>Model coefficients</u>		Total deliveries (I)	Beet deliveries (II)	Cane deliveries (III)	Direct Cons. Imports (IV)
Constant	A	781,033	406,289	553,053	Residual = I - (II+III)
Shifter	B	-90,308	0	30,049	
Trend (value in FY 2012) 1/	C	335,070	0	0	
Beet deliveries	D	0	0	-0.2035	
Oct	E	0	0	0	
Nov	F	-94,689	-44,194	-27,050	
Dec	G	-186,953	-84,089	-90,390	
Jan	H	-191,979	-66,166	-104,156	
Feb	I	-199,647	-68,311	-103,708	
Mar	J	-59,588	-23,032	-19,475	
Apr	K	-121,656	-40,605	-62,985	
May	L	-88,857	-19,866	-37,813	
Jun	M	-64,465	0	-19,954	
Jul	N	-74,946	-20,445	-40,905	
Aug	O	0	0	0	
Sept	P	0	0	0	

2011/12: 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) 2/
Oct	A+B+C+D*(II)+E	1,163,418	381,153	524,060	258,205
Nov	A+B+C+D*(II)+F	803,147	361,345	485,687	-43,885
Dec	A+B+C+D*(II)+G	848,655	320,535	430,691	97,429
Jan	A+B+C+D*(II)+H	808,677	351,813	414,483	42,381
Feb	A+B+C+D*(II)+J	875,796	365,106	441,360	69,330
Mar	A+B+C+D*(II)+J	992,433	397,538	503,895	91,000
Apr	A+B+C+D*(II)+K	904,139	365,683	445,715	92,741
May	A+B+C+D*(II)+L	936,938	386,423	466,667	83,849
Jun	A+B+C+D*(II)+M	961,330	406,289	480,484	74,557
Jul	A+B+C+D*(II)+N	950,848	385,843	463,693	101,312
Aug	A+B+C+D*(II)+O	1,025,795	406,289	500,438	119,068
Sept	A+B+C+D*(II)+P	1,025,795	406,289	500,438	119,068
Total projected deliveries	Sum	11,296,972	4,534,305	5,657,612	1,105,055

2012/13: 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) 2/
Oct	A+B+C+D*(II)+E	1,041,751	406,289	500,438	135,024
Nov	A+B+C+D*(II)+F	947,062	362,095	482,380	102,587
Dec	A+B+C+D*(II)+G	854,798	322,200	427,157	105,441
Jan	A+B+C+D*(II)+H	849,771	340,123	409,745	99,904
Feb	A+B+C+D*(II)+J	842,103	337,978	410,629	93,496
Mar	A+B+C+D*(II)+J	982,162	383,257	485,649	113,256
Apr	A+B+C+D*(II)+K	920,095	365,683	445,715	108,697
May	A+B+C+D*(II)+L	952,894	386,423	466,667	99,804
Jun	A+B+C+D*(II)+M	977,286	406,289	480,484	90,513
Jul	A+B+C+D*(II)+N	966,804	385,843	463,693	117,268
Aug	A+B+C+D*(II)+O	1,041,751	406,289	500,438	135,024
Sept	A+B+C+D*(II)+P	1,041,751	406,289	500,438	135,024
Total projected deliveries	Sum	11,418,227	4,508,756	5,573,434	1,336,037

1/ Coefficient value for FY 2012 = 351,026; 2/ Projections calculated as a residual.

Note: Total projected deliveries are rounded in the WASDE to 11,300,000 STRV for FY 2012 and to 11,425,000 STRV for FY 2013.

Source: 2011/12 - Oct. through March: USDA, FSA, *Sweetener Market Data*; Projections: USDA, ERS, *Sugar and Sweetener Outlook*.

Table 7 -- U.S. sugar: supply and use, by fiscal year (Oct./Sept.)

Items	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
	1,000 short tons, raw value												
Beginning stocks	2,216	2,180	1,528	1,670	1,897	1,332	1,698	1,799	1,664	1,534	1,498	1,472	1,671
Total production	8,769	7,900	8,426	8,649	7,876	7,399	8,445	8,152	7,531	7,963	7,831	8,290	8,575
Beet sugar	4,680	3,915	4,462	4,692	4,611	4,444	5,008	4,721	4,214	4,575	4,659	4,750	5,045
Cane sugar	4,089	3,985	3,964	3,957	3,265	2,955	3,438	3,431	3,317	3,387	3,172	3,540	3,530
Florida	2,057	1,980	2,129	2,154	1,693	1,367	1,719	1,645	1,577	1,646	1,433	1,825	1,800
Louisiana	1,585	1,580	1,367	1,377	1,157	1,190	1,320	1,446	1,397	1,469	1,411	1,400	1,400
Texas	206	174	191	175	158	175	177	158	152	112	146	145	150
Hawaii	241	251	276	251	258	223	222	182	192	161	182	170	180
Puerto Rico	0	0	0	0	0	0	0	0	0	0			
Total imports	1,590	1,535	1,730	1,750	2,100	3,443	2,080	2,620	3,082	3,320	3,738	3,668	2,860
Tariff-rate quota imports	1,277	1,158	1,210	1,226	1,408	2,588	1,624	1,354	1,370	1,854	1,721	2,116	1,283
Other Program Imports	238	296	488	464	500	349	390	565	308	448	291	550	450
Non-program imports	76	81	32	60	192	506	66	701	1,404	1,017	1,726	1,002	1,127
Mexico							60	694	1,402	807	1,708	992	1,117
Total Supply	12,575	11,615	11,684	12,070	11,873	12,174	12,223	12,571	12,277	12,817	13,067	13,430	13,105
Total exports	141	137	142	288	259	203	422	203	136	211	248	250	250
Miscellaneous	123	-24	161	23	94	-67	-132	0	0	-45	-22	0	0
Deliveries for domestic use	10,132	9,974	9,711	9,862	10,188	10,340	10,135	10,704	10,607	11,152	11,368	11,510	11,635
Transfer to sugar-containing products for exports under reexport program	98	156	183	142	121	106	169	141	120	201	196	180	180
Transfer to polyhydric alcohol, feed	33	33	24	41	48	51	53	61	46	35	33	30	30
Deliveries for domestic food and beverage use 1/	10,000	9,785	9,504	9,678	10,019	10,184	9,913	10,501	10,441	10,917	11,139	11,300	11,425
Total Use	10,395	10,087	10,014	10,172	10,542	10,476	10,424	10,907	10,743	11,319	11,595	11,760	11,885
Ending stocks	2,180	1,528	1,670	1,897	1,332	1,698	1,799	1,664	1,534	1,498	1,472	1,670	1,220
Privately owned	1,395	1,316											
CCC	784	212											
Stocks-to-use ratio	20.97	15.15	16.68	18.65	12.63	16.21	17.25	15.26	14.28	13.24	12.70	14.20	10.27

1/ For FY 2008-09, combines SMD deliveries for domestic human use, SMD miscellaneous uses, and the difference between SMD imports and WASDE imports.

Source: USDA, WASDE.

NOTE: Numbers may not add due to rounding.

Table 8 -- U.S. sugar: supply and use (including Puerto Rico), fiscal years (Oct./Sept.), metric tons

Items	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
1,000 metric tons, raw value													
Beginning stocks	2,010	1,977	1,386	1,515	1,721	1,208	1,540	1,632	1,510	1,392	1,359	1,336	1,516
Total production	7,955	7,167	7,644	7,846	7,145	6,712	7,662	7,396	6,832	7,224	7,104	7,521	7,779
Beet sugar	4,245	3,552	4,048	4,257	4,183	4,032	4,543	4,283	3,822	4,151	4,227	4,309	4,577
Cane sugar	3,710	3,615	3,596	3,590	2,962	2,681	3,119	3,113	3,009	3,073	2,877	3,211	3,202
Florida	1,866	1,796	1,932	1,954	1,536	1,240	1,559	1,492	1,431	1,493	1,300	1,656	1,633
Louisiana	1,438	1,433	1,240	1,249	1,049	1,079	1,198	1,312	1,267	1,332	1,280	1,270	1,270
Texas	187	158	173	159	143	159	161	143	138	101	132	132	136
Hawaii	219	227	251	228	234	202	201	165	174	146	165	154	163
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0	0	0
Total imports	1,443	1,393	1,570	1,588	1,905	3,124	1,887	2,377	2,796	3,012	3,391	3,328	2,594
Tariff-rate quota imports	1,158	1,051	1,098	1,113	1,277	2,348	1,473	1,228	1,243	1,682	1,561	1,920	1,164
Other Program Imports	216	269	443	421	454	317	354	513	279	407	264	499	408
Non-program imports	69	73	29	54	174	459	60	636	1,274	923	1,566	909	1,022
Mexico	0	0	0	0	0	0	54	630	1,272	732	1,549	900	1,013
Total Supply	11,408	10,537	10,599	10,949	10,771	11,044	11,088	11,404	11,138	11,627	11,854	12,184	11,889
Total exports	128	125	129	261	235	184	383	184	123	191	225	227	227
Miscellaneous	112	-22	146	20	85	-61	-120	0	0	-41	-20	0	0
Deliveries for domestic use	9,191	9,048	8,810	8,946	9,243	9,381	9,194	9,710	9,623	10,117	10,313	10,442	10,555
Transfer to sugar-containing products for exports under reexport program	89	141	166	129	110	96	153	128	109	183	178	163	163
Transfer to polyhydric alcohol, feed	30	30	22	38	44	46	48	56	42	31	30	27	27
Deliveries for domestic food and beverage use 1/	9,072	8,877	8,622	8,780	9,089	9,239	8,993	9,527	9,472	9,903	10,105	10,251	10,365
Total Use	9,431	9,151	9,084	9,228	9,563	9,504	9,457	9,895	9,746	10,268	10,519	10,668	10,782
Ending stocks	1,977	1,386	1,515	1,721	1,208	1,540	1,632	1,510	1,392	1,359	1,336	1,516	1,107
Privately owned	1,266	1,194	0	0	0	0	0	0	0	0	0	0	0
CCC	711	192	0	0	0	0	0	0	0	0	0	0	0
Stocks-to-use ratio	20.97	15.15	16.68	18.65	12.63	16.21	17.25	15.26	14.28	13.24	12.70	14.21	10.27

1/ For FY 2008-09, combines SMD deliveries for domestic human use, SMD miscellaneous uses, and the difference between SMD imports and WASDE imports.

Source: USDA, WASDE.

NOTE: Numbers may not add due to rounding.

## ***Mexico Sugar and High Fructose Corn Syrup***

On May 10, 2012, the USDA made revisions in the WASDE to 2011/12 Mexico sugar use components and made first projections for 2012/13 sugar supply/use and high fructose corn syrup (HFCS) consumption.

### ***Mexico Sugar and HFCS: 2011/12***

Mexico sugar production for 2011/12 is still estimated at 4.900 million metric tons (mt). Production through May 5, 2012, has totaled 4.597 million mt. This progress-to-date is ahead of the corresponding period in 2009/10 by 2.92 percent but behind last year by 7.70 percent. To meet the 4.900-million-mt forecast, production of 302,591 mt is needed. Two years ago, 358,670 mt was produced from this time to the end of the harvest, but last year the amount over the same period was only 202,362 mt. This year's production progress for the last 3 weeks has been in between the progress of the last 2 years.

This year's to-date cumulative sugarcane yield is 66.0 mt per hectare, and sugar recovery has been 10.89 percent. Under average conditions, the final sugarcane yield should end up at 65.2 mt/hectare, with recovery at 10.90 percent. Therefore, to produce 4.900 million mt, sugarcane production should be 44.954 million mt, with a total harvested area of 689,480 hectares. This would leave about 50,000 more hectares to be harvested. Again, this falls in between that of the last 2 years, but the *Comite Nacional Para El Desarrollo Sustentable de la Cana de Azucar* (CNDSCA) continues to project a final harvested area of 706,185 hectares. If realized, this would produce close to their forecast 5.036 million mt of sugar.

Estimated sugar imports remain at 382,543 mt. Although there has been much ballyhoo about the 250,000 mt TRQ provision in the Mexican Government's notice in its "*Diario Oficial de la Federacion*," no actual TRQ has been opened, nor is it necessarily certain that one will be. The notice seems to facilitate the mechanisms by which a TRQ could be opened if desired.

Estimated sugar consumption was lowered by 100,000 mt to 4.1 million mt, a total closer to that estimated by the CNDSCA. Last month, cumulative sugar consumption deliveries over 5 months of the marketing year were running about 4.15 percent above the same period of the previous year. However, March 2012 deliveries of 319,698 mt were more than 74,000 mt less than deliveries in March 2011. For the past 6 months, 2011/12 consumption deliveries are at about the same level as for the corresponding months a year earlier.

Sugar exports were raised to 859,000 mt, largely based on the 7-month pace of exports into the U.S. market. It is expected that the export pace in the remaining 5 months of the year will continue, but at a slightly reduced rate. As a consequence, the estimate of ending sugar stocks was decreased to 800,000 mt, or 19.5 percent of domestic sugar consumption. The estimate of HFCS consumption remains at 1.720 million mt, dry basis.

### ***Mexico Sugar and HFCS: 2012/13***

The USDA projects 2012/13 sugar production at 5.140 million mt. This projection aligns with that published in the Mexico City FAS GAIN Sugar Annual dated April 10, 2012. That forecast is based on expanded harvested area of 718,000 hectares and a sugarcane crop of 45.900 million mt, with sucrose recovery of 11.2 percent.

Imports for 2012/13 are projected at 181,000 mt. All imported sugar is directed toward Mexico's sugar-containing product re-export program, or IMMEX. Most of this sugar is sourced from the United States, with about 10,000 mt coming from other countries.

Projected sweetener consumption is assumed to grow at the same rate as population growth so that 2012/13 per capita sweetener consumption will be the same as that estimated for 2011/12, 50.62 kilograms. Sweetener consumption is, therefore, projected at 5.883 million mt. With HFCS prices significantly below domestic sugar

prices, the USDA projects the same 5-percent growth in HFCS consumption as in 2011/12. The result is 1.806 million mt. Projected sugar consumption is the residual—4.077 million mt.

Reflecting the anticipation of tightened market conditions in 2012/13, ending stocks are projected at the same 19.5 percent of domestic sugar consumption as in 2011/12, or 795,000 mt. Exports are projected to bring total use in balance with total supply. The projected result is 966,000 mt in ending stocks, about 12.5 percent more than estimated for 2011/12.

Table 9 -- Mexico: sugar production and supply, and sugar and HFCS utilization

Fiscal Year (Oct/Sept)	2010/11	2011/12 1/	2012/13 1/
	1,000 metric tons, raw value		
Beginning Stocks	973	806	847
Production	5,495	5,194	5,450
Imports	307	405	192
Imports for consumption	114	224	0
Imports for other uses (includes IMMEX)	193	181	192
Total Supply	6,774	6,405	6,490
Disappearance			
Human consumption	4,187	4,346	4,322
Other deliveries (IMMEX)	310	300	300
Miscellaneous	-86		
Total	4,411	4,646	4,622
Exports	1,558	910	1,024
Exports to the United States & Puerto Rico	1,518	900	1,013
Exports to other countries	40	11	11
Total Use	5,969	5,556	5,645
Ending Stocks	806	847	843
	1,000 metric tons, actual weight		
Beginning Stocks	918	760	800
Production	5,184	4,900	5,140
Imports	289	383	181
Imports for consumption	107	211	0
Imports for other uses (includes IMMEX)	182	171	181
Total Supply	6,391	6,042	6,121
Disappearance			
Human consumption	3,950	4,100	4,077
Other deliveries (IMMEX)	293	283	283
Miscellaneous	-81		
Total	4,161	4,383	4,360
Exports	1,469	859	966
Exports to the United States & Puerto Rico	1,432	849	956
Exports to other countries	38	10	10
Total Use	5,631	5,243	5,326
Ending Stocks	760	800	795
Stocks-to-human consumption (percent)	19.2	19.5	19.5
Stocks-to-use (percent)	13.5	15.2	14.9
HFCS consumption (dry weight)	1,635	1,720	1,806

1/ Forecast

Source: USDA, WASDE and ERS, MTED, *Sugar and Sweeteners Outlook*.

## **World Sugar**

The overseas offices of USDA's Foreign Agricultural Service (FAS) provide information on international production, consumption, and trade of most commodities of interest to U.S. agricultural producers, including sugar. Countries selected for scheduled annual or semiannual sugar commodity reporting are either major sugar producers or major markets for sugar. These annual and semiannual reports contain production, supply, and distribution (PSD) tables containing 3 years of data: past, current, and forecast. The data and accompanying analyses provide an overview of the sugar situation and outlook. It should be noted, however, that Production, Supply, and Distribution (PSD) data contained in the Global Agricultural Information Network, or GAIN, are not official USDA data, but represent estimates made by FAS Attachés.

This chapter summarizes recently released sugar GAIN reports (mostly in April 2012) for major producing and trading countries. Not all countries are covered, and some reports for certain major players may not have been released in time for inclusion.

### ***Brazil***

Sugarcane production in Brazil for 2012/13 is projected at 565 million metric tons (mmt), up 4 percent from last year. More than 88 percent of the crop, or 500 mmt, is located in the Center/South (C/S) regions of Brazil. Two new sugarcane processing plants are expected to come online this year, and area will likely expand about 1 percent. However, as with last year, the age profile of the sugarcane is higher than the historical average due to below-normal plantings. The lower plantings, along with dry weather in January-March of this year, will limit overall C/S yields.

The expected industrial yield is forecast at 139.07 kilograms (kg) of total reducing sugar (TRS) per metric ton of sugarcane. The forecast average is 2.48 kg above last year but about 1.00 kg lower than 2 years ago. Due to expected strong demand for sugar in international markets, the TRS ratio for sugar is forecast at 48.63 percent, a gain of 0.56 percentage point relative to last year and 2.68 percentage points relative to 2010/11. Overall sugar production is forecast at 37.8 mmt, raw value (rv), about 4 percent higher than last year; C/S production is forecast at 33.0 mmtrv, about 5 percent higher.

Ethanol production is forecast at 23 billion liters: 8.9 billion liters of anhydrous to be blended with gasoline at a 20-percent ratio, and 14.1 billion liters of hydrous ethanol for use in flex-fuel vehicles (FFV) and much older vehicles that use only hydrated ethanol. Although the FFV fleet continues to grow (now constituting 90 percent of all new vehicle sales and 45 percent of the total light vehicle fleet), hydrous ethanol sales are hurt by ethanol prices that are high relative to gasoline.

Sugar consumption in 2012/13 is projected to grow by 1.74 percent to 11.7 mmtrv. This increase is attributable to population growth and the continued expansion of the food processing sector in Brazil. Sugar exports in 2012/13 are expected to grow 600,000 mtrv, or 2.4 percent, to 25.25 mmtrv. About 79 percent of this amount is expected to be raw sugar.

LMC International reports that Brazilian sugar production costs, especially in dollar terms, have increased significantly the last couple of years. Various factors are responsible: high relative Brazilian economic growth has added to rising labor costs; the Brazilian real has retained its high value relative to the U.S. dollar; input prices have been high; and technical performance of the sugar industry has been poor over the last 2 years. The C/S region is still a low-cost production area, but producers elsewhere have become much more competitive.

### ***Colombia***

Colombian sugar production in 2011/12 reached 2.31 mmt. Although the La Niña weather pattern extended into 2011, precipitation in the Cauca Valley, where sugarcane is produced, was 60 percent lower than in the

corresponding period in 2010. More sugarcane was harvested and sugar production increased 30,000 mt above 2010/11 production. The forecast for 2012/13 is for the same 2.31 mmt produced in 2011/12.

Colombia's Cauca Valley is one of the Western Hemisphere's most productive sugarcane growing areas. Yields of 120 mt per hectare are the highest in Latin America. There are 13 sugarcane mills, 5 of which can also produce ethanol. Ethanol production is the chief constraint on increased sugar production in the Valley; about 18 percent of the 215,000 hectares harvested in 2011 are devoted to ethanol production., which is estimated at 337 million liters in 2011. Processing capacity is estimated at 1.3 million liters/day. A new facility, with a capacity of 300,000 liters/day, is expected to be producing in 2013.

Colombia also produces panela, a noncentrifugal sugar. Production in 2011 is estimated at 1.2 mmt on harvested area of 196,000 hectares scattered throughout Colombia. The forecast for 2012 is for production at about the 2011 level.

Colombia is expected to export 880,000 mt in 2012/13, an increase of 20,000 mt over 2011/12. Producers favor refined over raw sugar exports because of refined sugar's higher value. Refined exports in both 2011/12 and 2012/13 are expected to constitute over 70 percent of total sugar exports. Chief destinations for refined sugar are Chile and Peru.

Consumption in Colombia is projected at 1.64 mmt for 2012/13, an increase of 1 percent over 2011/12. Demand is especially strong from the confectionery industry due to the increasing importance of exports for the sector.

### ***Argentina***

Sugarcane has been a very profitable crop in Argentina for the last several years despite weather-related problems stemming from the La Niña phenomenon. An additional 30,000 hectares have been planted to sugarcane, mostly in Tucuman. In spite of the additional planted area, 2012/13 sugarcane production is expected to decrease 600,000 mt to 20.8 mmt. Dry weather from October 2011 through March 2012 has likely reduced yields from 62.0 mt/hectare in 2011/12 to a projected 57.8 mt/hectare in 2012/13. Stunted growth, especially on newly planted area, will probably translate into expanded harvested area by half of the amount of newly planted sugarcane area—that is, 15,000 hectares. Sugar production for 2012/13 is projected at 2.04 mmt, down from 2.15 mmt in 2011/12.

There is a Government ethanol-mixing mandate of 5 percent. Five sugarcane mills produce ethanol. Due to prices favoring higher returns from producing sugar, the supply of ethanol has been insufficient to reach the mixing mandate; the current mix is probably only half the mandated amount. Projects are now underway for producing ethanol from grain in the Cordoba and Santa Fe Provinces.

Sugar consumption is forecast at 1.874 mmt. High sugar prices are likely to favor increased HFCS use, especially in the beverage industry.

Exports for 2012/13 are projected at 260,000 mt. More than half of the exports (150,000 mt) are expected to be refined sugar. Sugar exports, like exports of other products, are subject to Government control. The Government's objective is to maintain a well-supplied domestic market.

### ***Guatemala***

Sugar production in Guatemala for 2012/13 is projected at 2.474 mmt. If realized, this would be a record, surpassing the expected record-year 2011/12 production of 2.402 mmt. Harvested area for 2012/13 is expected to be 247,000 hectares, an increase of 2,000 hectares over 2011/12 area. Total area available for sugarcane is limited due to competition from other plantation-type crops and water availability. Sugarcane yield is forecast at 90 mt/hectare, better than recent low yields resulting from excessive rainfall and limited sunlight.



Exports for 2012/13 are forecast at 1.725 mmt–975,000 mt of raw sugar and 750,000 mt of refined sugar. Raw sugar exports are directed primarily to the United States, South Korea, Canada, and Chile. The industry is interested in exporting more of its sugar in refined form. Caribbean and South American destinations are of particular interest. A new refined sugar warehouse facility in Puerto Quetzal can store 66,000 mt of refined sugar in 50-kg bags for containerized transport. This facility adds to excellent existing sugar facilities that can warehouse 365,000 mt of sugar. Port loading capacity stands at a high 2,200 mt/hour.

Sugar consumption for 2012/13 is projected at 750,000 mt, split between industrial demand at 28 percent and direct household demand for the remainder.

Ending stocks are projected at 94,000 mt, about the same as estimated for 2011/12. Stocks are usually at levels to guarantee supplies to the domestic market. Exceptions are for years of low production or of contraband exports, mainly to Mexico. The last incident of significant contraband activity is believed to have been in late 2009 and early 2010, when an estimated 60,000 mt were illegally exported to Mexico. This occurred at the same time as legal exports of 300,000 mt shipped to Mexico. To counter illegal exports, domestic prices are closely monitored and raised by authorities to discourage contraband activity. Normal contraband baseline export activity is thought to be about 2,000 mt per month, or 24,000 mt per year. This is almost exclusively sugar transported by bicycles, mules, horses, and pickup trucks. Recent reports of illegal exports of between 80,000 and 120,000 mt are not thought to be credible.

### *South Africa*

South Africa is recovering from 2 consecutive years of drought in its Kwazulu Natal province, where 75 percent of all its sugarcane is grown. With the return of seasonal rainfall patterns, sugarcane production is forecast at 17.9 mmt, up 6 percent over the previous year. Although an improvement, the projected 2012/13 production level is below the 15-year average of 20.4 mmt. Harvested area for 2012/13 is projected at 280,000 hectares, the same as the 2 previous years. South African sugarcane area has been trending down the last 15 years. The decline is attributed to lower profit margins, land reform uncertainty, infrastructure constraints, and urbanization.

Sugar production for 2012/13 is projected at 2.2 mmtrv, about 15 percent over the 2011/12 production of 1.9 mmtrv, the lowest of the last 15 years. The sugarcane-to-sugar ratio is projected at 8.50, less than last year's dismal 9.22, but not as low as the 8.35 ratio in 2010/11.

There are 29,130 sugarcane growers in South Africa. About 95 percent of these growers (27,580) produce about 8 percent of the total sugarcane crop. The remaining growers produce 85 percent, and milling companies that own their own estates grow 7 percent. Most areas depend on rainfall, but about 30 percent of the total, mainly in the northern parts of the Kwazulu Natal and Mpumalanga Provinces, rely on irrigation. There are 14 sugarcane mills in South Africa. Large firms include Ilovo Sugar Ltd. (4 mills) and Tongaat Hulett Sugar Ltd. (3 mills). Twelve mills are located in Kwazulu Natal and two in Mpumalanga. Growers and mills are partners in the South African Sugar Association (SASA). Although officially sanctioned, the SASA operates free of government control. Payments to growers are handled through the SASA according to a Division of Proceeds. Domestic and export sales of sugar and byproducts are shared between growers and the mills in predetermined proportions after subtracting administrative expenses. Payments to growers are adjusted to reflect the quality of the cane delivered to the mills.

South Africa is the chief supplier to the South African Customs Union (SACU). The SACU includes South Africa, Botswana, Lesotho, Namibia, and Swaziland. Demand growth is projected at 2 percent, considered to be a relatively low amount, due to slow economic growth and high sale prices. Demand is expected to pick up in 2013 by 3.6 percent and in 2014 by 4.2 percent. For 2012/13, South Africa is projected to supply 1.6 mmt to the SACU. An additional 340,000 mt from Swaziland is expected.

South African sugar exports are projected at 600,000 mt—half raw sugar and half refined sugar. Export growth over 2011/12 is expected to exceed 80 percent. About 28 percent of production is projected to be exported, above the 17 percent for 2011/12 but below the 10-year average of 45 percent.

### ***Egypt***

Sugar in Egypt is processed from domestically grown sugarcane and sugarbeets. Sugarcane area for 2012/13 is projected at 112,000 hectares. There are no expected increases to sugarcane area for the next 5 years due to national efforts to conserve water resources. Sugarbeet area for 2012/13 is projected at 148,000 hectares, up 2,000 hectares over 2011/12. Because sugarbeets are less intensive in their use of water, future Egyptian sugar production growth is expected to come mostly from beet sugar.

Sugar production for 2012/13 is projected at 2.01 mmt, up 1.5 percent over 2011/12. Cane sugar production is projected at 1.10 mmt, and beet sugar production is projected at 0.91 mmt.

Sugarcane processing is controlled by the public sector through the Sugar and Integrated Industries Company (SIIC). Sugarcane is sold to the SIIC by growers on the basis of weight. Sugarbeet processing is organized through five privately owned processors that cover different Egyptian Provinces. (A sixth processor is expected to enter the market soon.) Unlike sugarcane, sugarbeets are sold on the basis of sugar content. The Government buys all sugar production through the SIIC. Government control over sugar prices and provision of irrigation make both cane and beet sugar profitable for growers.

Sugar consumption for 2012/13 is projected at 2.95 mmt, an increase of 3.5 percent. With the Egyptian population growing at 1.5 million per year, sugar demand should remain strong into the future. Out of a population of 85 million, 60 million people receive ration cards from the Government that allow purchases of sugar at 1.25 Egyptian pounds per kilogram, much less than the market price, which fluctuates between 5.0 and 7.5 pounds/kg.

Sugar imports for 2012/13 are projected at 1.15 mmt, less than the 1.48 mmt estimated to enter in 2011/12. The import total for 2011/12 is higher due to the need to rebuild stocks from the previous year.

### ***Russia***

Sugarbeet production in Russia for 2012/13 is projected at 44.5 mmt, down 6.5 percent from last year's 47.6 mmt. Area, at 1.120 million hectares, is down 7 percent. The trend in sugarbeet yields (excepting the abnormal 2010/11 season) supports a 2012/13 forecast of almost 40.0 mt/hectare, close to last year's high yield of 39.7 mt/hectare.

In spite of last year's large sugarbeet production total, only 41.1 mmt of the 47.6 mmt crop were delivered to processors, and of that, only 40.0 mmt were processed into sugar. The 2011/12 sugarbeet post-harvest loss is calculated at 16 percent. According to the FAS Post, the 2012/13 sugarbeet post-harvest loss may be as high as 19 percent. Beet sugar production is forecast at 5.05 mmt, 450,000 mt less than last year. Recovery (raw basis) is expected to be 14.0 percent, close to last year's 13.75 percent.

Sugar consumption for 2012/13 is projected at 6.015 mmt, only marginally above last year's 5.995 mmt. High consumer prices, limiting demand expansion, are projected through the rest of 2011/12 and into 2012/13. Slow consumption growth is a result of a Government policy of restricting raw sugar imports to increase the market share of domestically produced beet sugar. Although sugar production is down 450,000 mt, projected imports are only 310,000 mt higher than last year, at 1.20 mmt. Ending stocks are projected at 400,000 mt, down 55,000 mt from last year.

## ***India***

Sugarcane production in India for 2012/13 is expected to continue its strong growth for the third consecutive year. Sugarcane area plantings are expected to expand 3 percent to 5.25 million hectares. Sugarcane production is forecast at 365 mmt, about 5 percent more than last year. Of this amount, 270 mmt is intended for centrifugal sugar production. The remaining 90 mmt is for seed (46 percent), noncentrifugal lump sugar, or gur (47 percent), and khandsari sugar (7 percent). Although domestic wholesale sugar prices have been soft, between \$540 and \$600 per mt, the prospect of strong export sales is expected to help processors maintain strong cash flows and avoid cane payment arrears to producers. Sugar production is forecast at 29.00 mmtrv, or 29.75 mmtrv if khandsari (a low-recovery form of centrifugal sugar) is included.

Sugar consumption in 2012/13 is forecast at 26.5 mmt, about 3.9 percent higher than in 2011/12. The growth is aided by a 1.8-percent increase in population and the expectation of continued overall growth in the economy. The Government of India reduced the import duty on high fructose corn syrup (HFCS) from 30 percent to 20 percent. Although this reduction favors more HFCS imports, it remains to be seen if HFCS can capture industrial sweetener consumption at anything above the 5,000 mt estimated for 2010/11.

Indian 2012/13 sugar exports are projected at 2.5 mmtrv. In 2011/12, the Indian Government has allowed 3.0 mmt of exports under the Open General License (OGL). Exports for 2011/12 through the end of March are estimated at 1.3 mmt. Based on pace to date, total 2011/12 exports will total 2.6 mmt. To guard against food-price inflation without restricting exports, the Indian Government has relaxed sugar import restrictions. The elimination of duties on both raw and refined sugar, expected to last through 2012/13, is especially important. Since December 2011, Government-imposed stockholding limits have also been lifted.

Ending 2012/13 sugar stocks are forecast at 7.28 mmtrv, about 750,000 mtrv more than projected beginning stocks. This amount is considered to be a normal level, corresponding to 3 months of domestic consumption needs.

## ***Pakistan***

Sugarcane is an important crop in Pakistan. It is the second largest agro-industry after textiles. There are 84 sugar mills processing a sugarcane crop planted on 1 million hectares. In terms of sugarcane area, Pakistan is the world's fifth largest producer. (With relatively low yields, however, Pakistan ranks about 15th in terms of sugar production.) The main competing crops are cotton and sunflowers. As in India, sugarcane maintains a short production cycle of 2-3 years. The short cycle contributes to greater volatility in production than is found in most sugarcane-producing countries that have longer cycles.

Pakistan experienced severe flooding in 2011. In anticipation of lower sugarcane production, the country imported more than a million tons of sugar. In spite of initial forecasts, cane sugar production was not much affected by the flooding and production of 3.9 mmtrv was realized. Ending stocks for 2010/11 grew to 1.47 mmtrv, up from 830,000 mtrv at the beginning of the crop year. With plentiful moisture, the 2011/12 sugarcane crop increased 9 percent to 58.6 mmt and sugar production grew to 4.3 mmtrv. Exports rose to 150,000 mtrv, and there were no imports. With 2011/12 ending stocks estimated at a high 1.34 mmtrv, provincial support prices are expected to be reduced from 2011/12 levels. Along with higher labor and energy prices, producers are expected to shift away from sugarcane in 2012/13. Sugarcane production for 2012/13 is forecast at 55.6 mmt, 5 percent lower than 2011/12. Sugar production is forecast at 4.1 mmtrv. Imports may rise to 200,000 mtrv to compensate for lower sugar production.

## ***China***

Sugar production in 2012/13 for China is forecast at 13.1 mmtrv, up 6 percent over last year due to increases in harvested area. Cane sugar production is forecast at 11.8 mmtrv (up 5 percent) and beet sugar production is forecast at 1.3 mmt (up 15 percent). These production gains follow strong production in 2011/12 of 12.3 mmtrv, up 10 percent from the preceding year due to higher harvested area and strong yields.

Sugarcane production for 2012/13 is forecast at 126 mmt, an increase of 4 percent. Area expanded by 50,000 hectares to 1.79 million hectares due to high prices that attracted production away from competing crops. Also, since 2011/12, all major sugarcane-producing Provinces have been required to set guidance prices for sugarcane producers, which helps the producers maintain the expectation of a guaranteed profit margin. Processors help producers by providing extension services, subsidized inputs, and the loan of mechanical equipment for plowing and irrigation. Sugarbeet production is forecast at 13.4 mmt. Although provincial authorities do not set guidance prices, processors have offered producers higher prices to increase production in a profitable market for sugar.

Chinese 2012/13 sugar consumption is forecast at 14.7 mmt, an increase of 3 percent over the previous year. In spite of the increase, industrial consumers have been substituting away from sugar due to higher prices. HFCS consumption in 2010/11 was about 640,000 mt, dry weight. This was 12.6 percent above the year before and 77 percent higher than 2 years before. Saccharine is also important for meeting Chinese sweetener demand. Although saccharine sales are restricted by Government authorities, sales in excess of quota are widely believed to take place.

Sugar imports by China are forecast at 2.1 mmt, a reduction of 200,000 mtrv from the level estimated for 2011/12. The low-duty tariff-rate quota (TRQ) to which China is bound through the World Trade Organization (WTO) is 1.95 mmt. The tariff rate for this sugar is 15 percent. The high-tier tariff rate is 50 percent. The Chinese Government's twelfth 5-Year Plan, covering 2011-15, has set a goal of sugar self-sufficiency of 85 percent. This would indicate planned expansion of imports in the future.

Chinese sugar stocks for 2012/13 are forecast at 2.3 mmtrv, 22 percent over 2011/12. A portion of sugar imports are expected to enter state reserves. Also announced in February 2012 was a temporary sugar purchase reserve program that will buy 1 mmt from domestic mills at above-market prices.

### ***Thailand***

Sugarcane production in Thailand for 2012/13 is projected at 105 mmt, an increase of 5 percent over the 2011/12 estimated production of 100 mmt. Production has expanded since 2009/10, mostly due to producers substituting sugarcane for lowered-value tapioca and corn. For the past few years, tapioca has been plagued by mealy bug infestations that have reduced yields and have been difficult to eradicate.

Thailand's sugar production for 2012/13 is projected at 10.85 mmtrv. Production for 2011/12 is estimated at 10.415 mmt, up 7.2 percent over the 2010/11 production of 9.663 mmt.

The initial Thai area expansion corresponded with opportunities in the export market. Due to recent downturns in Australian and Brazilian sugar availability, Thai sugar exports were able to expand 35 percent in 2010/11 to 6.6 mmtrv. Production gains allowed Thai exports to climb to an estimated 9.0 mmt in 2011/12. The forecast for 2012/13 is 9.3 mmt.

The Thai Government provides significant support to the sugarcane sector. The Government set the 2011/12 support price at 1,000 baht/mt (\$32.70/mt), an increase of 5.8 percent from the previous year. In February 2012, producers were awarded an additional 154 baht/mt direct payment. Government support has given producers a return about 20 percent higher than that afforded by the market—1,154 baht/mt compared with the market return of 958 baht/mt. In 2010, the Government also introduced a soft-loan program totaling \$100 million that allows producers to borrow for the purchase of mechanical harvesters. About \$66 million has been loaned so far, and the Government is considering funding of \$33 million for an additional period of 5 years. In 2010/11, the Government issued licenses for processors to open new milling facilities. Four of these new plants are expected to operate in 2012/13, bringing the number of mills to 51. Daily grinding production capacity will increase to 1.0 mmt/day, up from 0.9 mmt/day.

Sugar consumption for 2011/12 is estimated at 2.6 mmt and forecast for 2012/13 at 2.8 mmt. Massive flooding in 2011 reduced the growth of the Thai economy to only about 0.1 percent. The forecast for 2012 growth is from 5.5 to 6.5 percent. Interestingly, the flooding affected the demand for sugar but not the supply; most sugarcane is grown in upland areas not affected by the flooding. Only about 1 percent of total sugarcane area was damaged.

## *The Philippines*

Sugar production in the Philippines for 2011/12 is estimated at 2.24 mmtrv from a sugarcane crop of 24.3 mmt. In spite of a 6.4-percent expansion of sugarcane area in 2011/12, the sugar estimate is 7 percent less than originally forecast due to a prolonged wet season that reduced yields and sucrose content. Assuming a return to a normal weather pattern, sugarcane production for 2012/13 is projected at 26 mmt. Harvested area is expected to be the same as in 2011/12—415,000 hectares. Sugar production is forecast at 2.4 mmtrv.

Significant economies of scale in sugarcane production are difficult to achieve in the Philippines. There are an estimated 59,600 sugarcane producers, of whom 79 percent have holdings of less than 5 hectares. Only 1 percent of all producers have holdings over 100 hectares where greater scale efficiencies can be achieved. Land reform policies prevent land consolidation, making efficiency gains in production harder to achieve.

At the start of the marketing year in September, the Philippine Sugar Regulatory Commission (SRA) allocates how much of production will go to consumption, exports, and reserves. In September 2011, SRA allocated 72 percent to domestic uses, 20 percent for the world export market, and 8 percent for the U.S. market. Sugar consumption for 2012/13 is projected at 2.0 mmt, the same as originally projected for 2011/12. Due to high sugar prices, realized sugar consumption is estimated at only 1.72 mmt for 2011/12. Industrial consumers imported lower priced alternative sweeteners, especially high fructose corn syrup. With a return to lower sugar prices, consumption for 2012/13 should return to the forecast 2.0 mmt.

## *Australia*

The Australian sugar industry continues its recovery from the severe weather events of the last few years. Sugarcane area for 2012/13 is forecast at 380,000 hectares, the highest level since 2009/10. With the appearance of more normal weather patterns, land is being returned to cane production from other uses. Estimated area for 2011/12, at 366,000 hectares, is less than originally forecast due to anticipated prolonged recovery time from the cyclone and flood damage of 2009/10 and 2010/11. Over the longer term, area is expected to increase to 400,000 hectares. This amount, however, is still far below the 448,000 hectares harvested in 2002/03.

Sugarcane production for 2012/13 is forecast at 31 mmt, up from the 28 mmt in 2011/12. Yields are expected to recover to more normal levels—the 2012/13 forecast is 81.6 mt/hectare compared with the disappointing 76.5 mt/hectare in 2011/12. Sugar production for 2012/13 is forecast at 4.5 mmt, up from 3.9 mmt in 2011/12.

Sugar exports for 2012/13 are expected to increase by 200,000 mt to 3.0 mmt. The relatively high value of the Australian dollar is believed to be a constraining factor that leads to fewer exports and higher ending stocks. These stocks are forecast at 363,000 mt, up considerably from the 73,000 mt estimated for 2012/13 beginning stocks.

## Contacts and Links

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### Related Websites

Sugar and Sweeteners Outlook <http://www.ers.usda.gov/Publications/SSS/WASDE> <http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documented=1194>  
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