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# Sugar and Sweeteners Outlook

Stephen Haley, coordinator  
[shaley@ers.usda.gov](mailto:shaley@ers.usda.gov)

## U.S. Sugar April 2010

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The next release is  
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Approved by the World  
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In the April 2010 *World Agriculture Supply and Demand Estimates* (WASDE), the U.S. sugar supply for fiscal year (FY) 2010 is increased 143,000 short tons, raw value (STRV), from the March 2010 WASDE. Projected raw sugar tariff-rate quota (TRQ) imports were increased by 130,000 STRV. On March 25, 2010, the U.S. Trade Representative (USTR) reallocated 90,330 STRV of the minimum amount of the original raw sugar TRQ from countries that indicated to USTR that they would be unable to fill their previously allocated FY 2010 TRQ quantities. The remainder of the projected TRQ increase results from additional market incentives for quota holders to export to the United States due to lower world prices since last month. Beginning stocks were increased by 48,000 STRV to reflect additional ending FY 2009 beet sugar stocks reported by sugar beet processors to the U.S. Department of Agriculture. Cane sugar production in Florida is expected to be 35,000 STRV less than projected last month because of lower sucrose recovery.

## U.S. Sugar

In the April 2010 *World Agricultural Supply and Demand Estimates* (WASDE), the U.S. Department of Agriculture (USDA) published its latest projections for fiscal year (FY) 2010. The largest change from the March 2010 WASDE is a projected increase of sugar imports by 130,000 short tons, raw value (STRV). On March 25, 2010, the U.S. Trade Representative (USTR) reallocated 90,330 STRV of the minimum amount of the original raw sugar tariff-rate quota (TRQ) from countries that indicated to USTR that they would be unable to fill their previously allocated FY 2010 TRQ quantities. The reallocation was made to the other quota-holding countries that are able to ship this fiscal year. The sizes of the allocations are made on the basis of the quota-holding countries' historical shipments to the United States.

The remainder of the projected TRQ increase results from additional market incentives for quota holders to export to the United States due to lower world prices since last month. The no. 11 May 2010 Inter-Continental Exchange (ICE) raw sugar contract price has averaged 16.21 cents/pound (lb) from April 1 through April 8, down 27 percent since the first week in March. Although the no. 16 ICE raw sugar price for the United States has fallen as well, there is still about a 15 cent/lb margin separating the U.S. price from the world price. On this basis, the USDA expects imports of nearly 40,000 STRV in addition to those from the TRQ reallocation. New TRQ shortfall is 70,000 STRV, down from 200,000 STRV. (Table 1 shows components of FY 2010 sugar imports.)

Beginning stocks were increased by 48,000 STRV to reflect additional ending FY 2009 beet sugar stocks reported by sugar beet processors to the USDA. As explained in previous editions of this report, beet producers in FY 2009 were required to count as production only that sugar that had been crystallized. Prior to FY 2009, what counted as production also included uncrystallized thick juice. The problem was that the FY 2009 data was not directly comparable to previous years. Also, stored thick juice awaiting the crystallization process was not counted as part of beet stocks in FY 2009, further complicating comparisons with earlier years. The USDA surveyed beet processors for production that included thick juice awaiting the crystallization stage. That data have been published by the USDA in a revision to the Sweetener Market Data (SMD) in March 2010. The survey indicates that beet processors were holding an equivalent of 48,000 STRV of sugar in the form of thick juice as of September 30, 2009.

Production is not much changed from last month. Based on the USDA production survey, cane sugar production in Florida is reduced by 35,000 STRV to 1.630 million STRV. Some sources have spoken of decreased sucrose recovery, but it is not clear that the decrease is related to the freezing conditions experienced earlier this year. Forecast cane sugar production in Texas is unchanged at 140,000 STRV, although February production was only 2,984 STRV, far below the February average of 26,700 since FY 2001. A return to more normal monthly production levels will be necessary to meet the forecast of 140,000 STRV.

Projected beet sugar production remains at 4.5 million STRV. The projection was increased in the February WASDE on the basis of a strong harvest season in 2010/11 starting early, causing September's production to be 100,000 STRV more than the earlier forecast. However, *Prospective Plantings* from USDA's National Agricultural Statistics Service (NASS), indicates that 2010/11 area planted will be slightly less than this year: 1,174.22 thousand acres, a decrease of less than 1 percent. Area is down slightly in the Upper Midwest and Great Plains and up slightly in Michigan and the Far West. Although sugar yields may be better this coming year, some were expecting a larger area planted response to the high beet sugar prices experienced this year.<sup>1</sup>

<sup>1</sup> On March 16, 2010, U.S. District Court decided that sugar beet growers can plant their genetically modified (GMO) sugar beet seed this year. An ongoing court case had made the ban of using GMO seed a possibility. Various environmental groups have claimed that the USDA improperly approved GMO seed 5 years ago without thorough review or study. The judge indicated that there will be a hearing on July 9 to decide if future plantings are to be banned.

Table 1--USDA estimates of sugar imports in FY 2010, 4/13/2010

	Metric tons, raw value	Short tons, raw value
<b>Raw sugar TRQ</b>	1,117,195	1,231,497
Less shortfall attributable to Mexico 1/	-7,258	-8,001
Less other shortfall	-53,291	-58,743
<b>Total raw sugar TRQ</b>	<b>1,056,646</b>	<b>1,164,753</b>
<b>Refined sugar TRQ</b>		
Allocation to Canada	10,300	11,354
Allocation to Mexico	2,954	3,256
Less Mexican shortfall 1/	-2,954	-3,256
Global	7,090	7,815
Specialty		
Base	1,656	1,825
Additional	68,039	75,000
<b>Total refined sugar TRQ</b>	<b>87,085</b>	<b>95,994</b>
<b>CAFTA/DR TRQ - calendar 2010</b>	<b>112,580</b>	<b>124,097</b>
Singapore, Bahrain, Jordan	42	46
<b>Peru</b>	2,000	2,205
<b>Total estimate TRQ entries</b>	<b>1,258,353</b>	<b>1,387,095</b>
<b>Mexico</b>	<b>489,885</b>	<b>540,000</b>
<b>Re-export program imports</b>	<b>317,518</b>	<b>350,000</b>
<b>Sugar syrups, high-tier</b>	<b>9,072</b>	<b>10,000</b>
<b>Total projected imports</b>	<b>2,074,828</b>	<b>2,287,095</b>

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

Source: USDA, Foreign Agricultural Service.

Total sugar imports through the end of February are estimated at 1.045 million STRV, or about 48 percent of expected imports. Raw sugar TRQ entries are estimated at 623,500 STRV, which is about 60 percent of what was expected before the TRQ reallocation 5 months through the fiscal year: the share is now calculated at about 54 percent. Sugar imported from Mexico has totaled 207,000 STRV. The Sugar and Sweeteners Team of USDA's Economic Research Service (ERS) believes that about 67 percent of the total is destined for direct consumption by end users, with the remainder going to U.S. cane sugar refiners. The USDA did not change its projection of expected imports from Mexico: it is still forecast at 540,000 STRV but with a wide confidence interval reflecting uncertainties in production, Mexican sugar imports (including reports of unrecorded imports from Guatemala), and increased use of high fructose corn syrup. Although there were scattered reports of high-tier tariff sugar imports, the USDA decided not to change the projection in the WASDE until more information is available.

The WASDE projects the combination of deliveries for human consumption and miscellaneous categories at 10.140 million STRV, unchanged from last month. Many observers believe this figure to be unrealistically low. The categories were merged in the November 2009 WASDE when the then most recent version of the FY 2009 SMD showed total year-long miscellaneous use at about -300,000 STRV. At the time, it was believed that the various components of miscellaneous use should converge to zero; however, monthly cane processor sales less cane refiner receipts, one of the miscellaneous components, had been systematically diverging from zero since January 2008. In FY 2008, monthly cane sector sales less receipts totaled more than -150,000 STRV for the year. The corresponding total for FY 2009 was over -250,000 STRV.

Research by the ERS Sugar and Sweeteners Team supported the hypothesis that Mexican sugar not directly imported by U.S. cane sugar refiners was not all destined to a U.S. sugar end user as was assumed in the SMD accounting. The ERS research implied that about a third of what was being imported by nonrefiners was finding its way to U.S. cane refiners through intermediate sugar dealers and traders. These dealers and jobbers do not report to the USDA, and their activity is not part of the SMD. The end effect was that a substantial portion of deliveries for human consumption was being double counted. The sugar was counted as a direct consumption import when it entered the United States. After being delivered to a cane refiner, it entered the refiners' distribution system that led to it being counted again as a delivery for human consumption when shipped to an end user. In the view of the ERS Sugar and Sweeteners Team, SMD has yet to correct for the double-counting phenomenon. Figure 1 shows the ERS Team's estimate of where sugar from Mexico for FY 2008 and FY 2009 was destined.

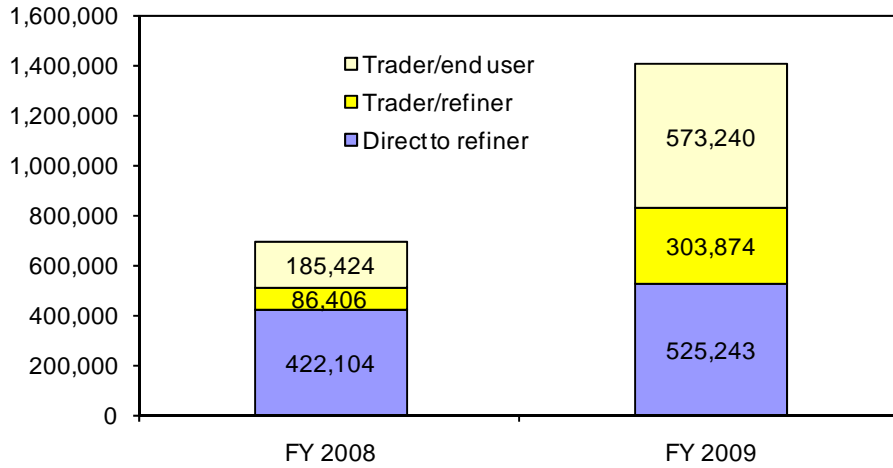
Domestic deliveries plus those amounts imported by dealers/traders for sale to end users or by end users themselves constitute deliveries for human consumption. Direct imported sugar is comprised not only of sugar from Mexico but also sugar from other countries entering under the refined sugar TRQ, high-tier tariff sugar, and other. Using U.S. Customs Service data collected by the USDA's Foreign Agricultural Service (FAS), the Sugar and Sweeteners Team has estimated direct consumption imports for FY 2008 and FY 2009 and made a projection for FY 2010. These are shown in figure 2, which also includes estimates for FY 2006 and FY 2007 for comparison. Total deliveries for human use are estimated at 10.289 million STRV for FY 2008 (compared with SMD at 10.521 million STRV) and 10.369 million for FY 2009 (compared with SMD at 10.620 million STRV). The Team's forecast for FY 2010 is 10.359 million STRV, flat with FY 2009.

Another problem lately recognized is that of refiners' losses, a miscellaneous category for cane refiners. The term has meaning for the individual refiner as an efficient measure of how well raw sugar inputs are transformed into refined sugar output. However, in SMD, it is a number that balances raw sugar inputs for all refiners against

Figure 1

**Sugar imports from Mexico, FY 2008-09, by refiners, traders, and direct use**

Short tons, raw value

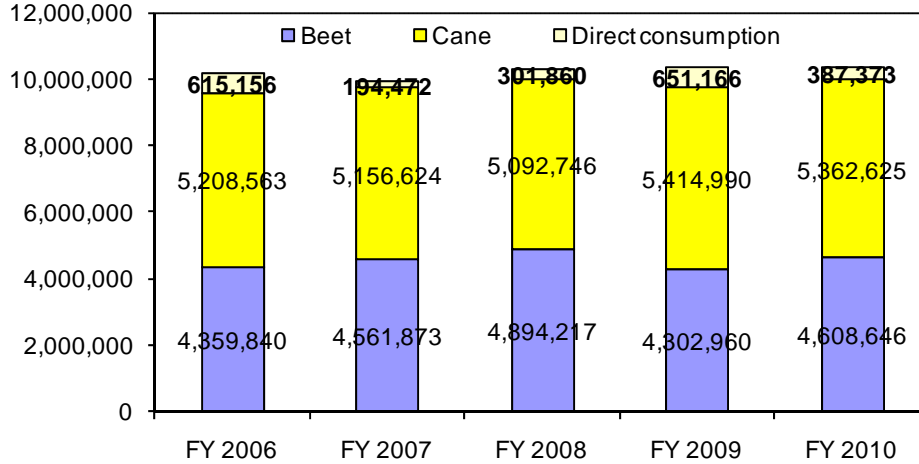


Source: Estimates by USDA, ERS, Sugar and Sweeteners Team on data from U.S. Customs Service.

Figure 2

**Sugar deliveries for human consumption, actual for FY 2006-07, and estimates, 2008-10**

Short tons, raw value

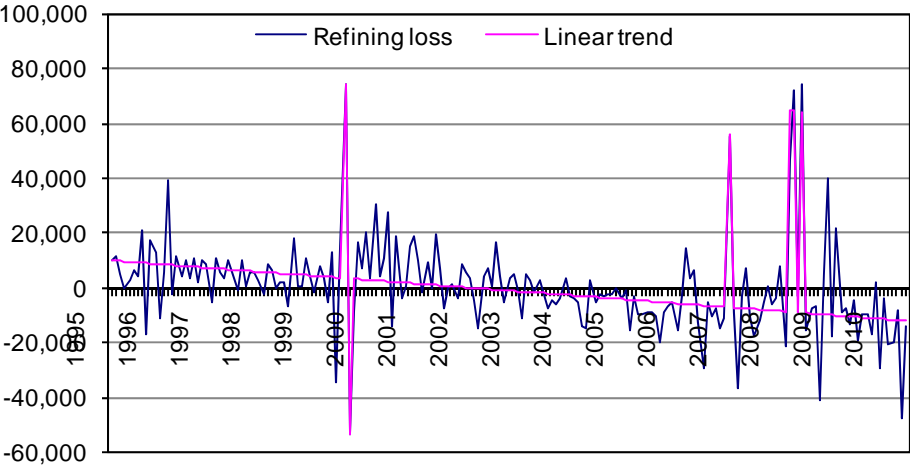


Source: Estimated by USDA, ERS, Sugar and Sweeteners Team, and USDA, Foreign Service Agency, *Sweetener Market Data*.

sugar output of those refiners on a monthly basis. SMD procedure requires that refiners report sugar input and output in equivalent raw sugar terms. Like the miscellaneous category of intra-industry sales less receipts, it has been supposed that the best annual projection of refiners' losses is zero. However, as figure 3 shows, there has been discernable negative trend in refiners' losses since FY 1995. When forecast out for the remainder of FY 2010, a statistically reasonable projection of refiners' loss is in the neighborhood of -200,000 STRV. This projection added to the ERS projection of deliveries for human consumption is 10.158 million STRV, close to the combined WASDE deliveries/miscellaneous projection of 10.140 million STRV.

Supply and use projections in the April 2010 WASDE imply ending stocks at 1.218 million STRV. The implied ending-year stocks-to-use ratio is 11.6 percent.

Figure 3  
**Estimated refining losses by U.S. refining industry, FY 1995-2010, by month**



Source: USDA, Foreign Service Agency, *Sweetener Market Data*.

Table 2--U.S. sugar: Supply and use, by fiscal year, short tons 1/ 4/13/2010

Items	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	<i>1,000 short tons, raw value</i>						
Beginning stocks 2/	1,670	1,897	1,332	1,698	1,799	1,660	1,499
Total production 3/,4/	8,649	7,876	7,399	8,445	8,152	7,532	7,907
Beet sugar	4,692	4,611	4,444	5,008	4,721	4,214	4,500
Cane sugar	3,957	3,265	2,955	3,438	3,431	3,318	3,407
Florida	2,154	1,693	1,367	1,719	1,645	1,577	1,630
Louisiana	1,377	1,157	1,190	1,320	1,446	1,397	1,500
Texas	175	158	175	177	158	152	140
Hawaii	251	258	223	222	182	192	137
Puerto Rico	0	0	0	0	0	0	0
Total imports	1,750	2,100	3,443	2,080	2,620	3,082	2,287
Tariff-rate quota imports 5/	1,226	1,408	2,588	1,624	1,354	1,370	1,387
Other program imports	464	500	349	390	565	308	350
Nonprogram imports	60	192	506	66	701	1,404	550
Mexico 6/				60	694	1,402	540
Total supply	12,070	11,873	12,174	12,223	12,571	12,274	11,693
Total exports 3/	288	259	203	422	203	137	150
Quota-exempt for reexport	288	259	203	422	203	137	150
Other exports	0	0	0	0	0	0	0
CCC disposal, for export	0	0	0	0	0	0	0
Miscellaneous	23	94	-67	-132	0	0	0
CCC disposal, for domestic nonfood use	0	0	0	0	0	0	0
Refining loss adjustment	0	0	0	0	0	0	0
Statistical adjustment 7/	23	94	-67	-132	0	0	0
Deliveries for domestic use	9,862	10,188	10,340	10,135	10,708	10,638	10,325
Transfer to sugar-containing products for exports under re-export program	142	121	106	169	141	113	145
Transfer to polyhydric alcohol, feed	41	48	51	53	61	46	40
Deliveries for domestic food and beverage use 8/	9,678	10,019	10,184	9,913	10,506	10,479	10,140
Total use	10,172	10,542	10,476	10,424	10,912	10,775	10,475
Ending stocks 2/	1,897	1,332	1,698	1,799	1,660	1,499	1,218
Privately owned							
CCC							
	<i>Percent</i>						
Stocks-to-use ratio	18.65	12.63	16.21	17.25	15.22	13.91	11.63

CCC = Commodity Credit Corporation.

Note: Numbers may not add due to rounding.

1/ Fiscal year beginning October 1. 2/ Stocks in hands of primary distributors and CCC. 3/ Historical data are from Farm Service Agency (FSA) for 'Sweetener Market Data (SMD)', and NASS, *Sugar Market Statistics* prior to 1992. 4/ Production reflects processors' projection compiled by the FSA. 5/ Actual arrivals under the tariff-rate quota (TRQ) with late entries, early entries, and TRQ overfills assigned to the fiscal year in which they actually arrived. The 2009/10 available TRQ assumes shortfall of 70,000 tons. 6/ Starting in 2007/08, total includes imports under Mexico's World Trade Organization TRQ allocation for raw and refined sugar. 7/ Calculated as a residual. Largely consists of invisible stocks change. 8/ For FY 2008-10, combines SMD deliveries for domestic human use, and the difference between SMD imports and *World Agricultural Supply and Demand Estimates* imports.

Table 3--U.S. sugar: supply and use (including Puerto Rico), fiscal years, metric tons 1/, 4/13/2010

Items	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
	<i>1,000 metric tons, raw value</i>						
Beginning stocks 2/	1,515	1,721	1,208	1,540	1,632	1,506	1,360
Total production 3/ 4/	7,846	7,145	6,712	7,662	7,396	6,833	7,173
Beet sugar	4,257	4,183	4,032	4,543	4,283	3,823	4,082
Cane sugar	3,590	2,962	2,681	3,119	3,113	3,010	3,091
Florida	1,954	1,536	1,241	1,559	1,492	1,431	1,479
Louisiana	1,249	1,049	1,079	1,198	1,312	1,267	1,361
Texas	159	143	159	161	143	138	127
Hawaii	228	234	202	201	165	174	124
Puerto Rico	0	0	0	0	0	0	0
Total imports	1,588	1,905	3,124	1,887	2,377	2,796	2,075
Tariff-rate quota imports 5/	1,113	1,277	2,348	1,473	1,228	1,243	1,258
Other program imports	421	454	317	354	513	279	318
Nonprogram imports	54	174	459	60	636	1,274	499
Mexico 6/	0	0	0	54	630	1,272	490
Total supply	10,950	10,771	11,044	11,088	11,404	11,135	10,608
Total exports 3/	261	235	184	383	184	124	136
Quota-exempt for re-export	261	235	184	383	184	124	136
Other exports	0	0	0	0	0	0	0
CCC disposal, for export	0	0	0	0	0	0	0
Miscellaneous	20	85	-61	-120	-1	1	0
CCC disposal, for domestic nonfood use	0	0	0	0	0	0	0
Refining loss adjustment	0	0	0	0	0	0	0
Statistical adjustment 7/	20	85	-61	-120	-1	1	0
Deliveries for domestic use	8,947	9,243	9,381	9,194	9,715	9,650	9,367
Transfer to sugar-containing products for exports under re-export program	129	110	96	153	128	102	132
Transfer to polyhydric alcohol, feed	38	44	46	48	56	42	36
Deliveries for domestic food and beverage use 8/	8,780	9,089	9,239	8,993	9,531	9,506	9,199
Total use	9,228	9,563	9,504	9,457	9,898	9,775	9,503
Ending stocks 2/	1,721	1,208	1,540	1,632	1,506	1,360	1,105
Privately owned	0	0	0	0	0	0	0
CCC	0	0	0	0	0	0	0
	<i>Percent</i>						
Stocks-to-use ratio	18.65	12.63	16.21	17.25	15.22	13.91	11.63

CCC = Commodity Credit Corporation.

Note: Numbers may not add due to rounding.

1/ Fiscal year beginning October 1. 2/ Stocks in hands of primary distributors and CCC. 3/ Historical data are from The Farm Service Agency (FSA) (formerly ASCS), *Sweetener Market Data* (SMD), and NASS, *Sugar Market Statistics* prior to 1992. 4/ Production reflects processors' projections compiled by the FSA.

5/ Actual arrivals under the tariff-rate quota (TRQ) with late entries, early entries, and TRQ overfills assigned to the fiscal year in which they actually arrived.

The 2009/10 available TRQ assumes shortfall of 63,503 tonnes. 6/ Starting in 2007/08, total includes imports under Mexico's World Trade Organization TRQ allocation for raw and refined sugar. 7/ Calculated as a residual. Largely consists of invisible stocks change. 8/ For FY 2008-10, combines SMD deliveries for domestic and human use, SMD miscellaneous uses, and the difference between SMD imports and *World Agricultural Supply and Demand Estimates* imports.

Table 4--Mexico: Sugar production and supply and sugar and HFCS utilization, by fiscal years 4/13/2010

Fiscal Year (Oct/Sept)	2003	2004	2005	2006	2007	2008	2009	2010 1/
	<i>1,000 metric tons</i>							
Beginning stocks	1,172	1,194	1,237	1,965	1,294	1,718	1,975	488
Production	5,229	5,330	6,149	5,604	5,633	5,852	5,260	4,900
Imports	63	327	268	240	474	226	160	970
Supply	6,464	6,851	7,654	7,809	7,401	7,796	7,395	6,358
Disappearance								
Human consumption	5,097	5,380	5,279	5,326	5,133	5,090	5,065	4,600
Other consumption	135	220	282	323	390	414	475	400
Miscellaneous						-360		
Total	5,232	5,600	5,561	5,649	5,523	5,144	5,540	5,000
Exports	38	14	128	866	160	677	1,367	490
Total use	5,270	5,614	5,689	6,515	5,683	5,821	6,907	5,490
Ending stocks	1,194	1,237	1,965	1,294	1,718	1,975	488	868
Stocks-to-human consumption	23.4	23.0	37.2	24.3	33.5	38.8	9.6	18.9
Stocks-to-use	22.7	22.0	34.6	19.9	30.2	33.9	7.1	15.8
HFCS consumption (dry weight)	130	135	355	667	698	782	653	1,200

1/ Forecast.

Sources: USDA, Foreign Agricultural Service, Production, Supply and Distribution database (historical data);  
*World Agricultural Supply and Demand Estimates.*

## Contacts and Links

### Contact Information

Stephen Haley, (202) 694-5247, [shaley@ers.usda.gov](mailto:shaley@ers.usda.gov) (coordinator)  
Mike McConnell (202) 694-5158, [mmcconnell@ers.usda.gov](mailto:mmcconnell@ers.usda.gov) (world sugar)  
Erik Dohlman (202) 694-5308, [edohlman@ers.usda.gov](mailto:edohlman@ers.usda.gov) (commodity analyst)  
Mae Dean Johnson (202) 694-5245, [maedean@ers.usda.gov](mailto:maedean@ers.usda.gov) (web publishing)

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### Data

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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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