

CHANGES TO THE SWEETENER MARKET DATA TABLES

The Farm Service Agency (FSA) is revising the methodology for determining some components of the sugar supply and use balance sheet to improve FSA's estimates of supply, use and stocks for the domestic sugar market. The revisions in methodology affect data published in the Sweetener Market Data (SMD) report, and were prompted by changes in the marketing of sugar following full implementation of NAFTA on January 1, 2008.

First, the domestic market is using substantially more imported refined sugar since implementation of NAFTA. FSA, with Foreign Agricultural Service (FAS) concurrence, is revising the procedure used to estimate refined sugar imports. FAS had previously provided estimates of imported refined sugar from an analysis of Customs data.

Second, NAFTA has increased the role of traders in the domestic sugar market. Traders import raw and refined sugar, sell sugar, and maintain stocks outside the universe of businesses historically surveyed for the SMD report (historical reporters include sugar beet processors, sugarcane processors, and cane sugar refiners).

The underlying concern and rationale for incorporating trader-based data is that the SMD's sugar beginning stocks, imports, deliveries, and ending stocks were incomplete since traders were not reporting to USDA. Two methods to incorporate trader data in the SMD in FY 2009 were examined. First, FSA surveyed a sample of traders on a monthly basis in FY 2009 to estimate their participation in the domestic sugar market. Second, an indirect method was developed to estimate the U.S. raw and refined sugar market activity of traders based on data historically reported to FSA. The FY 2009 sugar supply and use results using each method are compared below in Table B.

FSA has been collecting monthly data from cane and beet sugar processors and cane sugar refiners (reporters) for 18 years. The data represent the physical flows of sugar in the U.S. market and are published monthly by FSA. These data are needed to manage the sugar program and contribute to the monthly World Agricultural Supply and Demand Estimates (WASDE) for sugar. At the end of each fiscal year, reporters are required to provide USDA with a CPA-certified audit to verify that the information provided throughout the year is accurate.

Refined sugar imports

FSA is implementing a permanent change in methodology to estimate refined imports (direct-consumption imports, or DCI) effective with this report, using an indirect method based on data reported to FSA. FSA and FAS concur that the new method is less subjective, more accurate, and computationally simpler than the previous method. Information can be gleaned from monthly FSA surveys to derive total raw imports into the U.S. during the year. Under the new method, total raw sugar imports are calculated as cane refiner reported raw sugar imports plus

cane refiner reported domestically purchased raw sugar, less cane processor reported raw sugar sales (see Table A). The difference between cane refiner reported domestically purchased raw sugar and cane processor reported raw sugar sales is an estimate of raw sugar imported by traders. Subtracting the estimate of total raw sugar imports from total monthly Customs imports yields total refined sugar imports. Since historical FSA reporters may report raw sugar imports in different months than Customs, the monthly estimate of refined imports is subject to error. However, on an annual basis, the error should be very small because FSA's historical reporters must report imports to FSA in the customs year identified on the Customs import document.

This procedure reduces the previous FAS estimate of refined sugar imported in FY 2009 by 124,615 tons, to 1,081,366 tons. Since refined sugar imports directly affect sugar deliveries, sugar deliveries were also reduced by 124,615 tons in the SMD report for FY 2009.

Comparisons with Trader-Collected Data

FSA collected comprehensive sugar data as an experiment from a sample of traders in FY 2009 to gauge their impact on the domestic sugar market. When Mexico started exporting heavily to the U.S. due to the NAFTA, questions arose as to whether some of the DCI might have been stored upon entry into the U.S. Customs territory, rather than delivered, causing deliveries to be overestimated and stocks underestimated.

In Table B, the first column is taken from the "total" column from the September, 2009, SMD report, Table 1, U.S. Sugar Supply and Use. Table 1 incorporates the new method for determining refined sugar imports where DCI equals 1,081,366. The second column adds the trader data for beginning stocks, raw sugar imports, exports, deliveries, and ending stocks data from our FY 2009 sample survey of traders to the Table 1 data. Incorporating trader data from our survey increased ending stocks and reduced deliveries, as expected, but the amounts were relatively small--a 63,786 ton increase in stocks (4%) and a 44,740 decrease in human use deliveries. Most importantly, incorporating the trader data increased the 'intra-industry sales less receipts' component of Miscellaneous Use by 141,239 tons. The 'intra-industry sales less receipts' component of Miscellaneous has been a growing concern in FY 2009 (see the August, 2009 SMD for a more complete discussion of this issue).

The third column in Table B displays the approach that will be used in the SMD report effective October 1, 2009. The SMD will use the total raw sugar imports estimate used to estimate the total refined sugar imports (described in Table A) instead of the raw sugar imports reported to FSA. Note that the estimate of total imports in the third column is within 24,000 tons of the

estimate using our trader surveys plus historical reporter data. The estimate of raw sugar imported by traders will be counted as an intra-industry sale in the 'intra-industry sales less receipts' line. When this indirect method is used, FY 2009 raw imports increase by 136,950 tons and intra-industry sales less receipts increase by the same amount. The new approach for estimating raw sugar sales by traders to refiners results in total imports consistent with Customs data and significantly reduces, but does not eliminate, the 'intra-industry sales less receipts' component of Miscellaneous Use. Table C shows the entire FY 2009 revised with this approach.

Beet Production

Effective October 1, 2009, beet sugar production will be calculated as it was prior to October 1, 2008. During the October 1, 2008 through September 30, 2009 period, the calculation of beet sugar production in the SMD was altered to reflect a change in the 2008 Farm Bill, which defined in-process beet sugar as an 'input' into the production of refined beet sugar, just like sugar beets, rather than as 'sugar'. Since October 1, 2008, beet sugar production in the SMD has strictly indicated refined crystalline beet sugar made during the month. Previously, beet sugar production in the SMD represented not only refined crystalline beet sugar, but also the refined sugar equivalent of the in-process beet sugar (beet thick juice) produced during the month. The FY 2009 exclusion of thick juice in the sugar total created FY 2009 sugar production and stocks statistics that could not be compared with historic SMD statistics. To be specific, the early months of fiscal year 2009 (FY 2009) beet sugar production and resulting ending stocks appear lower than normal years because the thick juice produced in the beginning of the beet campaign was not included. Conversely, beet sugar production in the latter part of FY 2009 appears higher than normal years because it accounts for the production of refined crystalline sugar from stored thick juice. While the monthly production and ending stock patterns may be skewed for FY 2009, the final beet production and ending stock number are correct.

Table C adjusts monthly beet production and ending stock numbers to include the refined sugar equivalent of the in-process beet sugar in order to make the final FY 2009 SMD comparable to historic data. Effective with the October 2009 SMD, beet crop production will include both refined crystalline beet sugar produced, and also the refined sugar equivalent of the in-process beet sugar (beet thick juice) produced during the month. This change will synchronize future production and stocks numbers with the past.

Table A. Import Calculations	Total FY 2009
<p>Note: Cane refiners either import raw sugar directly or purchase it from others. They report both these items monthly to FSA. By FSA definition, only refiners use raw sugar.</p>	
<p>Total raw sugar imports:</p>	
+ Cane refiner reported raw sugar imports	1,863,982
+ Cane refiner reported domestically purchased raw sugar	3,486,197
<u>- Cane processors reported raw sugar sales</u>	<u>3,349,247</u>
= Total raw sugar imports	2,000,932
<p>Total refined imports:</p>	
+ Total Imports reported by Customs	3,082,296
<u>- Total raw sugar imports</u>	<u>2,000,932</u>
= Total refined sugar imports	1,081,364
<p>Raw sugar imported by traders:</p>	
+ Cane refiners reported domestically purchased raw sugar	3,486,197
<u>- Cane processors reported raw sugar sales</u>	<u>3,349,247</u>
= Raw sugar imported by traders	136,949

TABLE B. COMPARISON OF 3 APPROACHES

(SHORT TONS, RAW VALUE)

ITEM	Table 1 Column 1	Table 1, Adjusted to Include Surveyed Trader Data Column 2	Total Imports = Custom's Total Imports Minus Raw Imports derived from monthly reporter surveys = DCI Column 3	Column 2 Minus Column 1	Column 3 Minus Column 1
Beginning stocks:	1,660,332	1,687,638	1,660,332		
Processor/Refiner/Trader Stocks	1,439,916	1,467,223	1,439,916	27,307	
Stocks held for others	220,415	220,415	220,415		
Total production:	7,484,038	7,484,038	7,484,038		
Beet	4,166,372	4,166,372	4,166,372		
Cane	3,317,666	3,317,666	3,317,666		
Imports:	2,945,348	3,106,359	3,082,296		
Raw	1,863,982	2,024,993	2,000,932	161,011	136,950
Direct-consumption 1/	1,081,366	1,081,366	1,081,366		
Supply	12,089,718	12,278,035	12,226,666	188,317	
Exports	136,527	164,447	136,527	27,920	
Domestic deliveries:	10,787,841	10,743,213	10,787,841	-44,628	
Alcohol non-human use	18,200	18,313	18,200	113	
Livestock feed	27,775	27,775	27,775		
Products Re-export Program	112,555	112,555	112,555		
Human use:	10,629,311	10,584,571	10,629,311	-44,740	
By beet processors:	4,302,960	4,302,960	4,302,960		
Domestic food use sales	4,372,271	4,372,271	4,372,271		
Undelivered sales	298,673	298,673	298,673		
Sold previous, delivered	229,362	229,362	229,362		
By cane refiners/processors/traders	5,422,207	5,571,475	5,422,207	149,268	
By non-reporters	904,144	710,137	904,144	-194,007	
Miscellaneous:	-285,981	-144,742	-149,031	141,239	
Refining loss	-101,670	-101,670	-101,670		
Inventory adjustment	53,521	53,521	53,521		
Sales less receipts 2/	-237,832	-96,593	-100,882	141,239	136,950
Use	10,638,387	10,762,918	10,775,337	124,531	
Ending stocks:	1,451,331	1,515,117	1,451,331	63,786	
Processor/Refiner/Trader Stocks	1,161,604	1,225,391	1,161,604		
Stocks held for others	289,726	289,726	289,726		

1/ WILL BE IDENTIFIED INSTEAD AS 'REFINED' EFFECTIVE OCTOBER 1, 2009.

2/ REFLECTS SHIPMENTS OF SUGAR BY PROCESSORS AND REFINERS TO OTHER PROCESSORS AND REFINERS.

TABLE C. COMPARISON OF 3 APPROACHES

ITEM	OCT 08	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUN	JUL	AUG	SEP 09	TOTAL
Beginning stocks:	1,660,332	1,961,883	2,863,191	3,695,343	4,041,790	4,296,284	4,110,161	3,935,673	3,643,365	3,175,530	2,633,704	1,930,675	1,660,332
Processor/Refiner stocks	1,439,916	1,885,369	2,803,141	3,658,639	4,020,859	4,289,218	4,109,618	3,935,222	3,642,939	3,169,844	2,633,344	1,930,326	1,439,916
Stocks held for others	220,415	76,515	60,052	36,705	20,930	7,066	543	450	427	5,685	359	346	220,415
Total production:	941,840	1,496,865	1,388,786	915,185	717,458	569,237	395,658	287,037	194,166	127,857	106,031	343,918	7,484,038
Beet	607,399	703,807	652,439	569,514	388,489	284,271	308,548	168,463	64,511	29,772	40,046	349,113	4,166,372
Cane	442,934	895,128	827,786	421,689	336,067	242,081	39,010	20,498	25,184	20,757	23,725	22,806	3,317,666
Imports:	404,023	277,159	254,278	242,504	156,084	294,098	339,522	322,635	206,062	303,001	166,079	116,853	3,082,296
Raw	266,918	186,300	152,706	133,807	209,128	38,690	193,488	216,224	177,466	205,909	73,116	147,179	2,000,932
Direct-consumption (Refined)	137,106	90,860	101,572	108,697	-53,044	255,408	146,033	106,412	28,595	97,092	92,962	-30,327	1,081,366
Supply	3,006,195	3,735,908	4,506,255	4,853,032	4,915,332	5,159,619	4,845,341	4,545,345	4,043,593	3,606,388	2,905,814	2,391,446	12,226,666
Exports	11,166	12,069	6,677	13,369	6,478	8,984	11,818	16,189	13,070	12,120	12,722	11,863	136,527
Domestic deliveries:	1,015,705	868,948	817,138	820,581	623,947	1,069,821	914,068	892,023	876,046	962,859	995,399	931,305	10,787,841
Alcohol non-human use	2,430	1,484	980	1,185	1,449	1,303	1,394	1,832	1,512	1,548	1,582	1,501	18,200
Livestock feed	3,491	2,815	2,725	3,144	1,680	2,001	2,153	2,533	2,244	1,587	1,463	1,937	27,775
Products Re-export Program	8,301	4,070	5,090	9,145	8,839	12,305	12,229	11,486	9,160	9,692	12,998	9,240	112,555
Human use:	1,001,483	860,579	808,343	807,107	611,979	1,054,212	898,292	876,172	863,130	950,032	979,356	918,627	10,629,311
By beet processors:	436,731	352,093	333,316	315,591	282,455	344,418	321,861	331,565	379,075	363,863	404,034	437,958	4,302,960
Domestic food use sales	292,831	335,630	309,969	299,816	268,590	337,895	321,768	331,542	384,334	358,537	404,021	727,338	4,372,271
Undelivered sales	0	3,597	0	0	0	0	0	0	5,350	161	161	289,405	298,673
Sold previous, delivered	143,901	20,060	23,346	15,775	13,865	6,523	93	23	92	5,487	173	25	229,362
By cane refiners/processors	449,861	434,141	400,524	394,563	392,157	468,078	447,370	458,696	467,297	498,844	492,037	518,640	5,422,207
Imports to non-reporters	114,891	74,345	74,503	96,953	-62,633	241,716	129,061	85,911	16,758	87,325	83,285	-37,971	904,144
Miscellaneous:	17,441	-8,300	-12,903	-22,708	-11,378	-29,348	-16,218	-6,232	-21,054	-2,295	-32,982	-3,054	-149,031
Refining loss	21,243	-9,194	-7,530	-13,386	-4,793	-19,449	-9,689	-9,837	-17,309	1,539	-29,428	-3,839	-101,670
Inventory adjustment	4,341	5,272	-422	3,864	3,262	-1,454	3,778	12,596	8,587	5,754	3,647	4,298	53,521
Sales less receipts	-8,143	-4,378	-4,951	-13,186	-9,847	-8,445	-10,307	-8,991	-12,332	-9,588	-7,201	-3,513	-100,882
Use	1,044,312	872,717	810,912	811,242	619,047	1,049,457	909,668	901,980	868,062	972,684	975,139	940,114	10,775,337
Ending stocks:	1,961,883	2,863,191	3,695,343	4,041,790	4,296,284	4,110,161	3,935,673	3,643,365	3,175,530	2,633,704	1,930,675	1,451,332	1,451,331
Processor stocks	1,885,369	2,803,141	3,658,639	4,020,859	4,289,218	4,109,618	3,935,222	3,642,939	3,169,844	2,633,344	1,930,326	1,161,604	1,161,604
Stocks held for others	76,515	60,052	36,705	20,930	7,066	543	450	427	5,685	359	346	289,726	289,726