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Sugar Program: The Basics

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Sugar Policy Overview

The sugar program provides a price guarantee to the processors of sugarcane and sugar beets, and in turn, to the producers of both crops. The U.S. Department of Agriculture (USDA) also is directed to administer the program at no budgetary cost to the federal government by limiting the amount of sugar supplied for food use in the U.S. market. To achieve both objectives, USDA uses four tools—as reauthorized without change by the 2014 farm bill to be in effect through crop year 2018 and found in long-standing trade law—to keep domestic market prices above guaranteed levels. These are:

- price support loans at specified levels—the basis for the price guarantee,
- marketing allotments to limit the amount of sugar that each processor can sell,
- import quotas to restrict the amount of sugar allowed to enter the U.S. market, and
- a sugar-to-ethanol (feedstock flexibility) backstop—available if marketing allotments and import quotas fail to prevent a sugar surplus from developing (i.e., fail to keep market prices above guaranteed levels).

For background on sugar policy debate, see CRS Report R42551, *Sugar Provisions of the 2014 Farm Bill (P.L. 113-79)*.

Price Support Loans

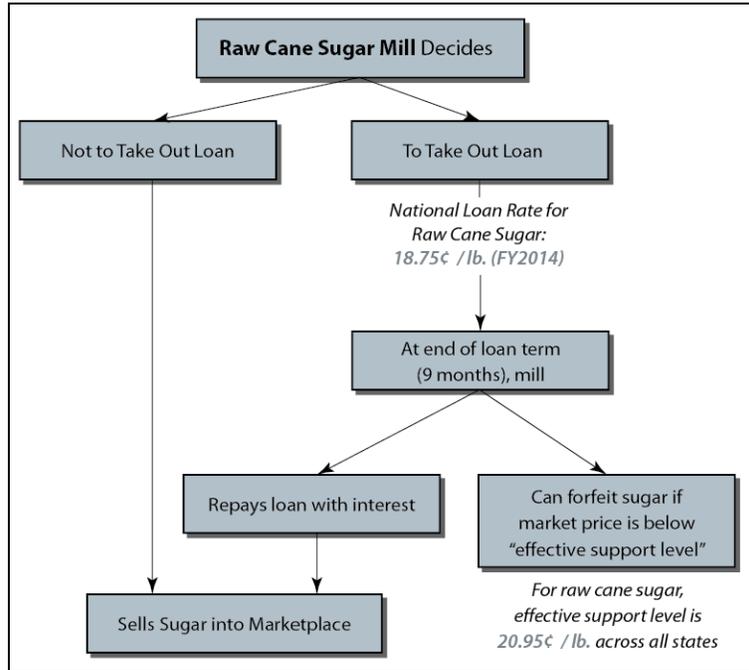
Nonrecourse loans taken out by a processor of a sugar crop, not producers themselves, provide a source of short-term, low-cost financing until a raw cane sugar mill or beet sugar refiner sells sugar. Their “non-recourse” feature means that processors—to meet their repayment obligation—can exercise the legal right to forfeit sugar offered as collateral to USDA to secure the loan, if the market price is below the effective support level when the loan comes due. **Figure 1** and **Figure 2** illustrate the repayment options available to beet sugar refiners and raw cane sugar mills, respectively, and show FY2014 loan rates and effective support levels.

The price levels at which processors can take out loans are referred to as “loan rates.” The raw cane sugar loan rate (18.75¢/lb.) is lower than the refined beet sugar loan rate (24.09¢/lb.) to reflect its unprocessed state. Raw sugar must be further processed by a cane refinery to have the same value and characteristics as refined beet sugar for food use.

The minimum market price that a processor wants to receive in order to remove the incentive to forfeit sugar and instead repay a price support loan, though, is higher than the loan rate. The “effective support level,” also called the loan forfeiture level, represents all of the costs that processors want to cover if they decide to repay the loan. These costs equal the loan rate, *plus* interest accrued over the nine-month term of the loan, *plus* certain marketing costs. The effective support level for raw cane sugar is 20.95¢/lb.; for refined beet sugar, it ranges from 24.3¢ to 26.2¢/lb., depending on the region.

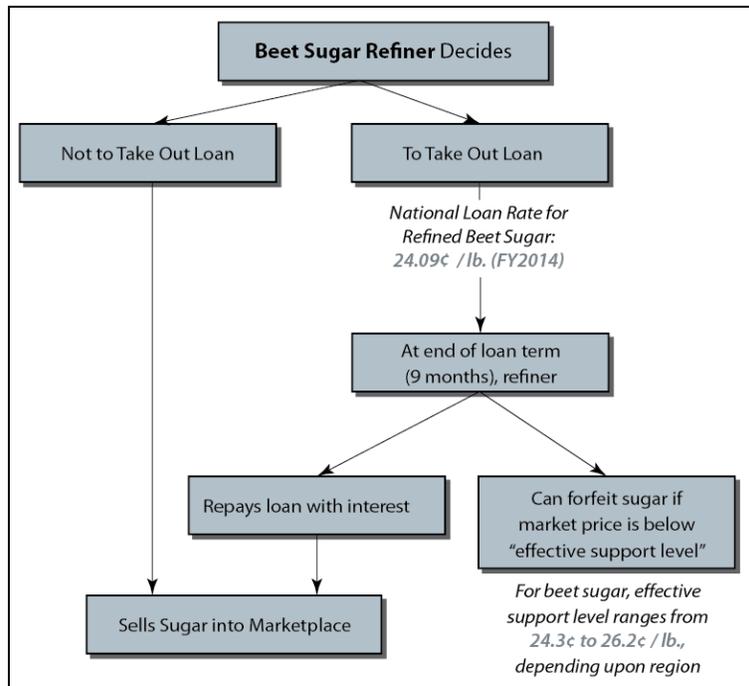
If market prices are below these loan forfeiture levels when a price support loan usually comes due (i.e., July to September), and a processor hands over sugar earlier pledged to obtain this loan rather than repaying it, USDA records a budgetary expense (i.e., an outlay). If this occurs, USDA gains title to the sugar and is responsible for disposing of this asset.

Figure 1. Price Support Loan Making Process for Raw Cane Sugar



Note: As of April 1, 2014, mills that process sugarcane had 658,081 tons of 2013 raw cane sugar under loan, valued at \$239 million. This represents 17.8% of USDA’s March 2014 estimate of raw cane sugar production from the 2013 sugarcane crop.

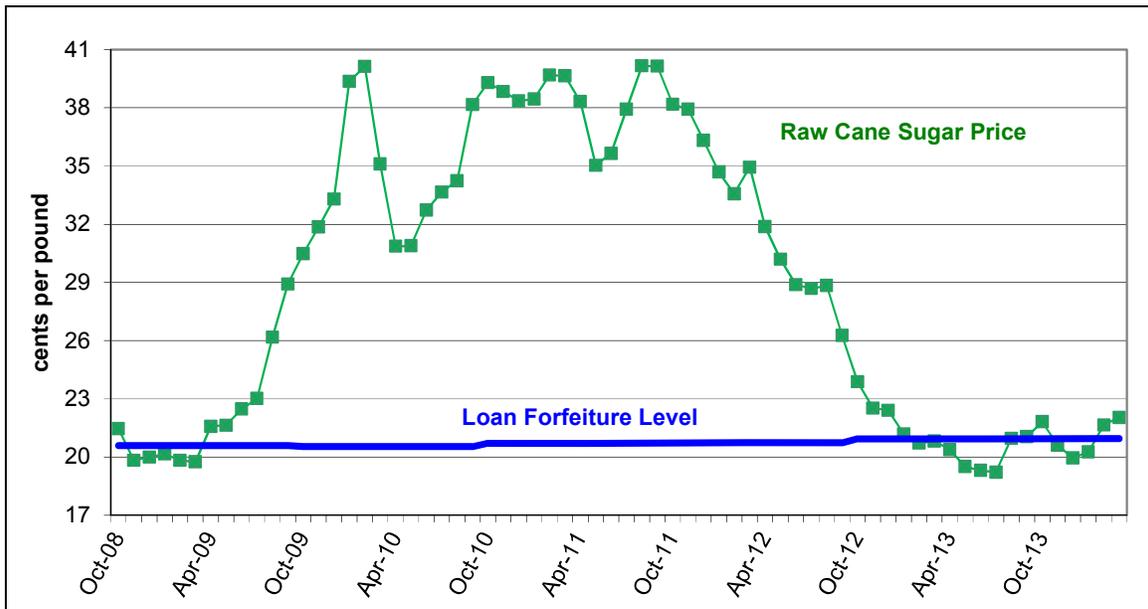
Figure 2. Price Support Loan Making Process for Refined Beet Sugar



Note: As of April 1, 2014, processors of sugar beets had 715,500 tons of 2013 beet sugar and in-process beet sugar under loan, valued at \$ 295 million. This represents 14.2% of USDA’s March 2014 estimate of refined beet sugar production from the 2013 sugar beet crop. Sugar beet processors also still had under loan 31,500 tons of beet sugar from the 2012 crop valued at almost \$15 million.

Market prices for raw cane sugar and refined beet sugar since the 2008 farm bill provisions took effect were higher than loan forfeiture levels until mid-year 2013 (Figure 3 and Figure 4, respectively). Toward the end of FY2013, prices lower than these effective support levels prompted processors to forfeit, or hand over, to USDA 381,875 tons of sugar (4.3% of FY2013 U.S. sugar output valued at almost \$172 million). USDA actions taken to avert these forfeitures, and then to dispose of sugar acquired as a result of these forfeitures, are detailed below in “Sugar Purchases and Exchanges for Import Rights” and “Feedstock Flexibility Program for Bioenergy Producers”.

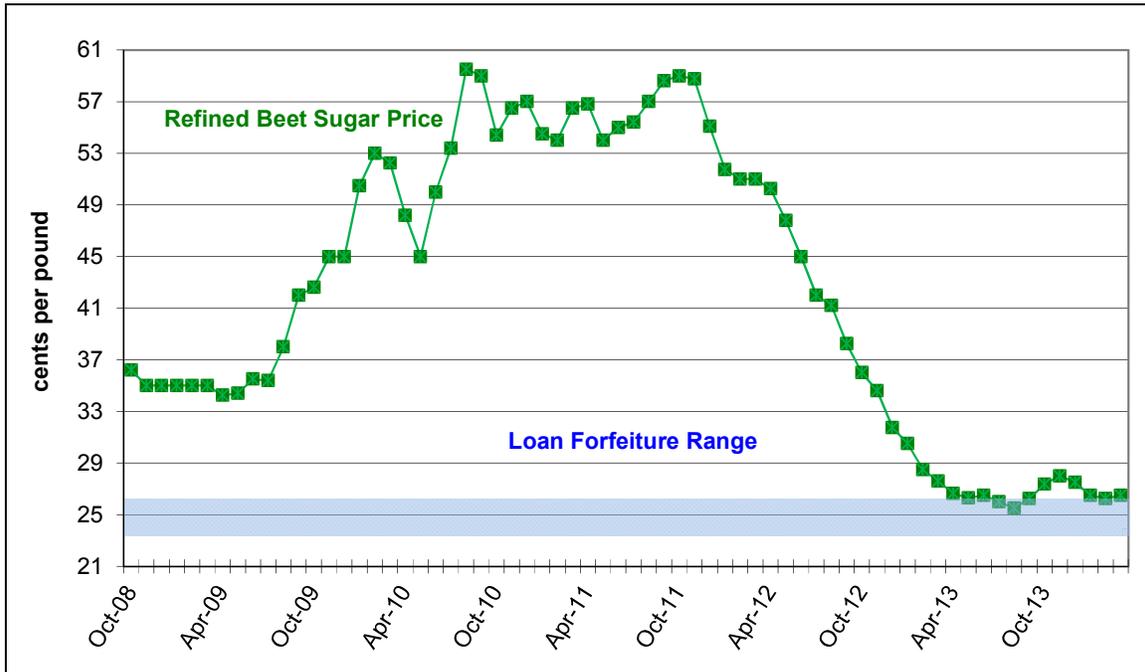
Figure 3. Raw Cane Sugar Prices Have Been Well Above Loan Forfeiture Level During 2008 Farm Bill Period Except in Early FY2009, Late FY2013 and Early FY2014



Source: USDA, Economic Research Service, for price data; USDA, Farm Service Agency, for loan forfeiture level.

Note: Raw cane sugar market price is the average futures price for the nearby month contract for domestic #16, traded in New York City on the Intercontinental Exchange (ICE).

Figure 4. Refined Beet Sugar Prices Have Been Well Above Loan Forfeiture Range During 2008 Farm Bill Period Until End of FY2013



Source: USDA, Economic Research Service, for price data; USDA, Farm Service Agency, for loan forfeiture range.

Note: The market price for refined beet sugar is the quoted price for wholesale refined beet sugar in Midwest markets, as published by *Milling and Baking News*.

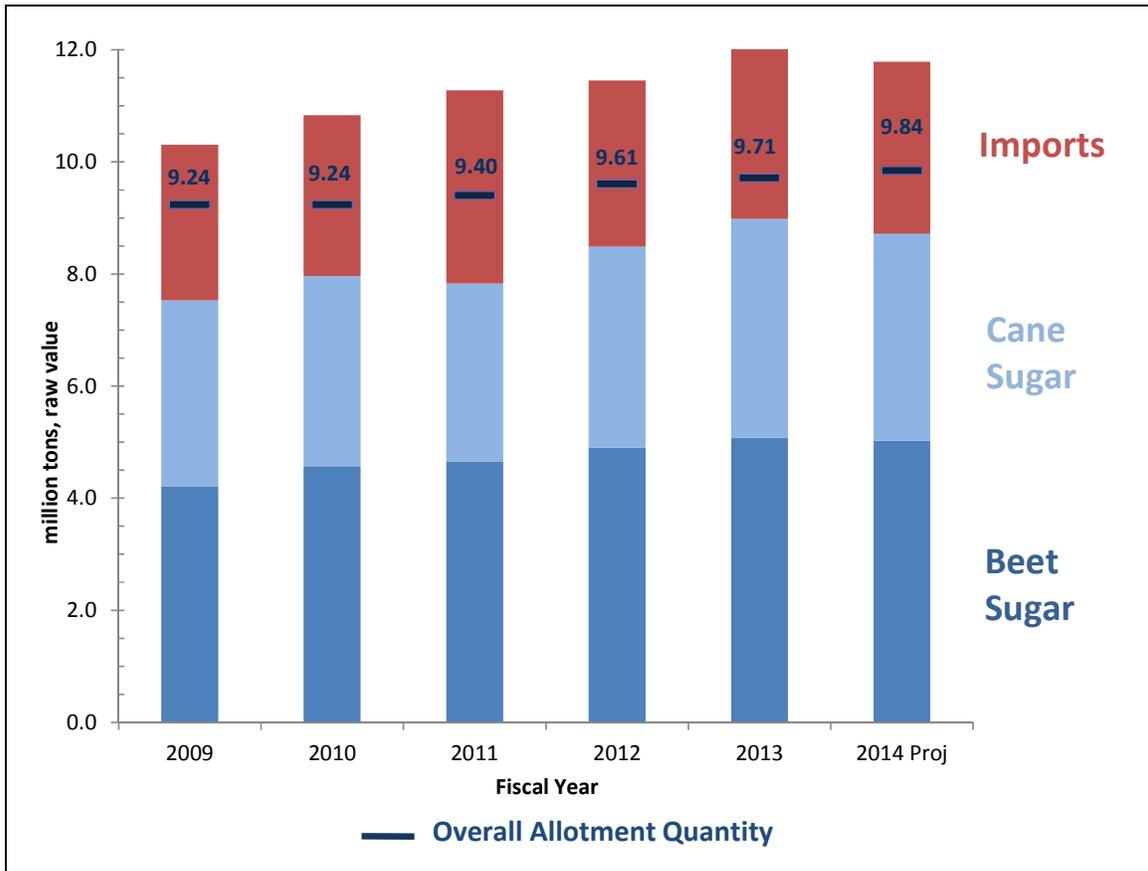
Marketing Allotments

Sugar marketing allotments limit the amount of domestically produced sugar that processors can sell each year. They do not, however, limit how much beet and cane farmers can produce, nor do they limit how much sugar beets and sugarcane that beet refiners and raw sugar mills can process. In a 2008 farm bill change, and retained by the 2014 farm bill, USDA each year must set the overall allotment quantity (OAQ) at not less than 85% of estimated U.S. human consumption of sugar for food. The OAQ is intended to ensure that permitted sales of domestic sugar, when added to imports under U.S. trade commitments, do not depress market prices below loan forfeiture levels for refined beet sugar and raw cane sugar.

In recent years, because of growing U.S. sugar demand and weather's impact on domestic output, processors have sold all of the sugar they produced. From FY2009 through FY2013, U.S. sugar production supplied 74% of total U.S. food use of sugar. Imports of sugar covered the balance needed to meet U.S. demand (**Figure 5**). For this reason, market participants view USDA's decisions on setting import quotas rather than marketing allotments as having more of an impact on market price levels (see "Import Quotas").

The national OAQ is split between the beet and cane sectors, and then allocated to processing companies based on previous sales and production capacity. If either sector is not able to supply sugar against its allotment, USDA has authority to reassign such a "shortfall" to imports. **Figure 6** lays out the details of USDA's marketing allotment decisions made during FY2011 to illustrate how the complex statutory provisions are administered.

Figure 5. Overall Allotment Quantity Compared to Total U.S. Sugar Supply

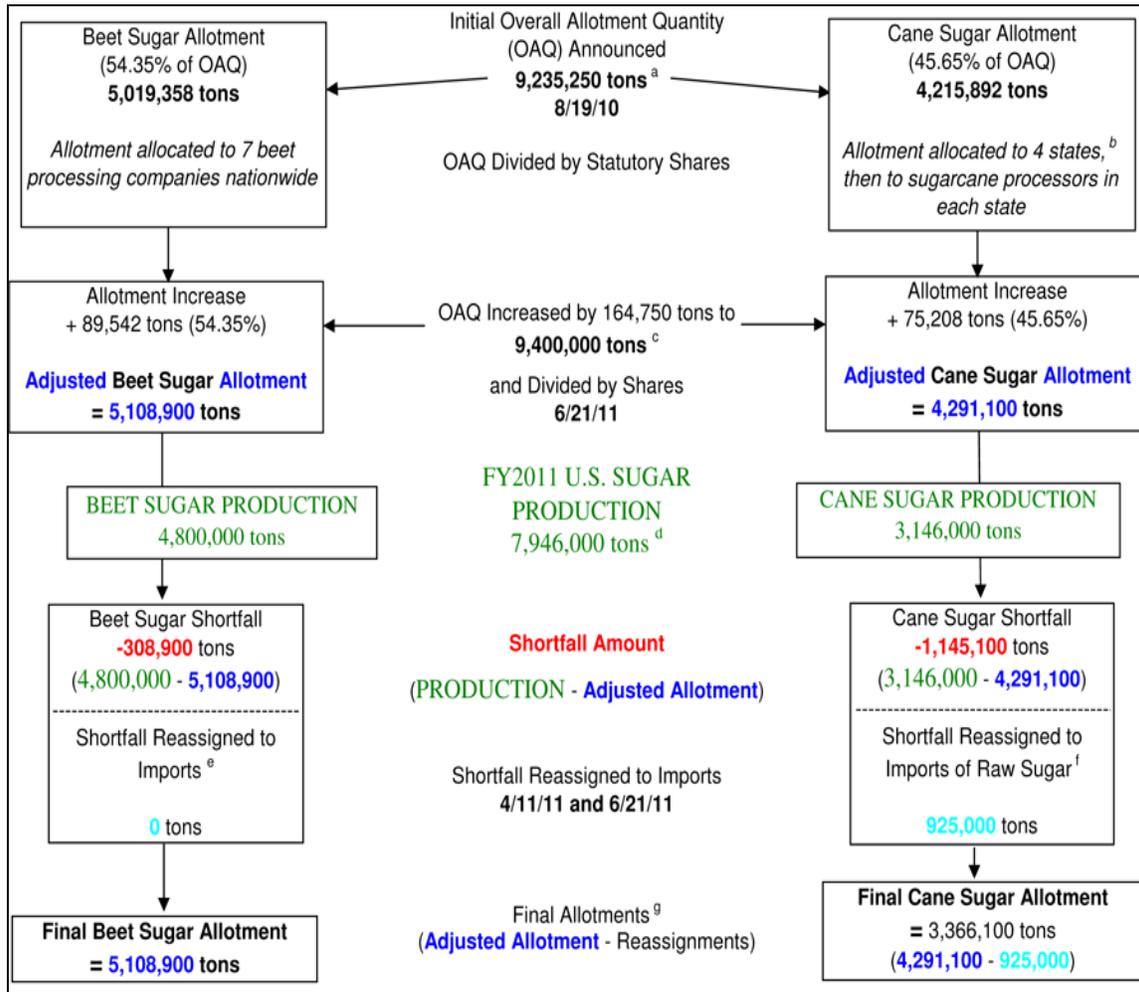


Source: Derived by CRS from USDA sugar program announcements, and USDA's World Agricultural Supply and Demand Estimates reports.

Note: Imports shown occur under terms of U.S. trade commitments, discussed in the next section.

Figure 6. USDA Marketing Allotment Decisions Made During FY2011

Relationship to U.S. Sugar Production and Imports



Source: Derived by CRS from USDA and Farm Service Agency press releases.

a. OAQ amount announced was equal to 88% of USDA's food use estimate made in its August 2010 World Agricultural Supply and Demand Estimates (WASDE) report.

b. Florida, Louisiana, Texas, and Hawaii

c. OAQ change reflects USDA's increase in estimated FY2011 U.S. sugar consumption for food in June 2011 WASDE report. The adjusted OAQ equaled 85.5% of estimated food use, just above required minimum. The OAQ increase allowed for reassignment of allocations from beet sugar processors unable to fill them, to beet processors with a supply of sugar available to sell into the marketplace. The increase in the cane allotment allowed for small adjustments in some raw cane sugar mill allotments. The difference between the adjusted cane sugar allotment and raw cane sugar production (i.e., the shortfall) was reassigned to imports of raw sugar.

d. USDA estimate made June 2011, which then remained unchanged through September 2011.

e. The 2008 farm bill allows for reassigning beet sugar shortfall to imports of refined sugar. USDA decided not to exercise this authority.

f. April and June reassignments were partially covered by the two increases that USDA announced to the FY2011 WTO import quota (see **Figure 8**).

g. Final beet and cane allotments, plus the 925,000 ton shortfall reassigned to raw sugar imports, equals the 9,400,000 ton OAQ announced on June 21, 2011.

Import Quotas

The United States imports sugar in order to meet total food demand. From FY2009 through FY2013, imports accounted for 27% of U.S. sugar used in food and beverages. The amount of foreign sugar supplied to the U.S. market reflects U.S. commitments made under various trade agreements. At the same time, a 2008 farm bill provision directs USDA to manage overall U.S. sugar supply, including imports, so that market prices do not fall below effective support levels. The most significant import limit is the World Trade Organization (WTO) quota commitment, which requires the United States to allow not less than 1.256 million tons of sugar (almost all raw cane) to enter the domestic market from 40 countries. The United States also grants much smaller import quotas to the six countries covered by the Dominican Republic-Central American Free Trade Agreement (DR-CAFTA), and to Colombia, Panama, and Peru under separate free trade agreements.

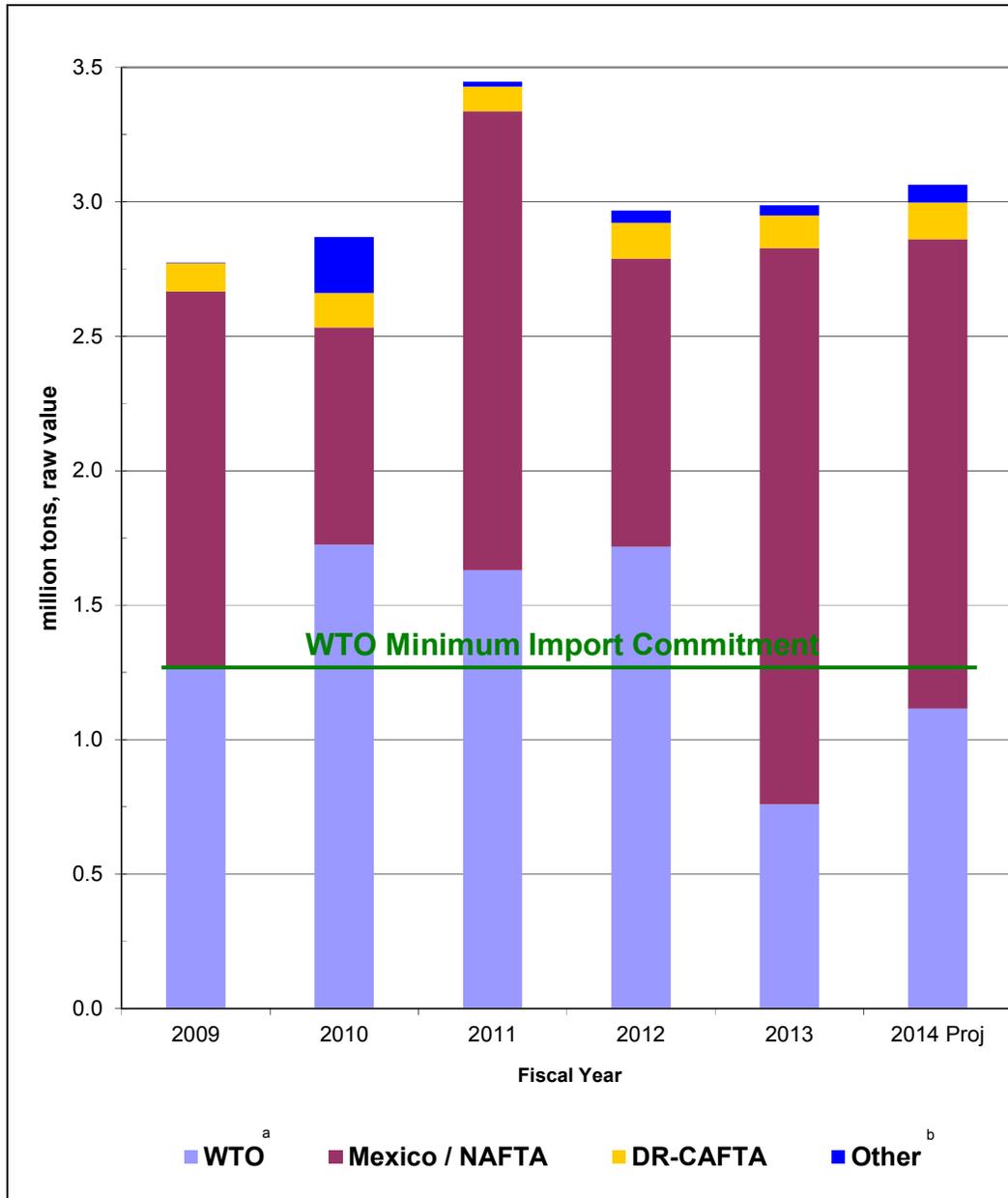
Under the North American Free Trade Agreement (NAFTA), though, Mexico is free to export any amount of sugar to the U.S. market. This unrestricted access has introduced uncertainty as to how much sugar Mexico will ship north in any year. To illustrate, imports since 2008 have ranged from a low of about 800,000 tons (FY2010) to a high of almost 2.1 million tons (FY2013). This variability (**Figure 7**) reflects large swings in the amount of Mexican sugar available for export in any year, depending on the impact of drought in some years in Mexico's sugarcane producing regions, and the degree to which U.S. exports of cheaper high-fructose corn syrup displace Mexican consumption of Mexican-produced sugar.

During the FY2009-FY2013 period, almost 47% of U.S. sugar imports entered under the U.S. WTO commitment. Mexico accounted for 47%, and the DR-CAFTA countries' share was 4% (**Figure 7**).

To address the uncertainty expected from imports of Mexican sugar, the 2008 farm bill introduced a new tool, retained by the 2014 farm bill, to regulate imports, as follows:

At the beginning of each marketing year (October 1), USDA must set the WTO quotas for raw cane and refined sugar at the minimum level (1.256 million tons) necessary to comply with this trade commitment (**Figure 7**). In case there is an emergency sugar shortage (caused by weather or war) before April 1 of any year, USDA is required to increase these quotas. If there is no such emergency, USDA must wait until April 1 (the midpoint of the marketing year) before deciding whether or not to increase the WTO raw sugar quota. Any increase in the import quota is temporary in that it applies only until the beginning of the next marketing year. **Figure 8** shows the timing of USDA decisions to increase or modify the WTO raw sugar quota under this 2008 provision.

Figure 7. U.S. Sugar Imports, by Trade Agreement
Raw Cane and Refined Sugar



Source: USDA, Economic Research Service, Foreign Agricultural Service, and the World Agricultural Outlook Board.

Notes: Imports for domestic food/beverage consumption only; excludes sugar imported for the sugar re-export program.

a. FY2013 imports under the WTO commitment reflect a 600,000 ton shortfall (i.e., the cumulative amount of sugar that eligible countries with a quota can sell, but are not expected to ship, to the U.S. market for various reasons). For FY2014, USDA projects a 250,000 ton shortfall.

b. In FY2010, “Other” largely represents entries of over-quota imports of sugar outside of trade agreement quota commitments. These were subject to a very high tariff. Beginning in FY2012, “Other” primarily refers to entries of sugar imports on preferential terms from Colombia and Panama under FTAs that took effect on May 15, 2012, and October 31, 2012, respectively.

Sugar Purchases and Exchanges for Import Rights

From July to September 2013, USDA completed four sugar “exchanges” in an effort to bolster market prices and forestall loan forfeitures of some 2012 crop sugar. Two involved USDA purchasing sugar from processors, which then was exchanged for import rights that cane refiners and brokers surrendered to USDA. These initiatives were taken to reduce the amount of sugar expected to be supplied to the U.S. market, and were implemented by USDA using 1985 farm bill authority. This cost reduction options provision authorizes USDA to purchase a supported commodity deemed to be in surplus if such action results in program savings. The other two exchanges involved bids made by refiners and brokers for sugar acquired by USDA from processors as a result of loan forfeitures in return for surrendering import rights. All four exchanges resulted in the transfer of \$85 million of sugar (203,037 tons, or 2.3 % of FY2013 U.S. sugar production) purchased and acquired by USDA, to refiners and brokers who agreed not to import almost 610,000 tons of sugar. Analysts expect most of the price impact of these exchanges to be realized in FY2014.

Feedstock Flexibility Program for Bioenergy Producers

If market prices fall below levels guaranteed by the sugar program, USDA must administer a sugar-for-ethanol program using domestic sugar intended for food use. Its objective is to permanently remove sugar from the market for human consumption by diverting it into a non-food use—ethanol. When the Secretary of Agriculture determines that activating this program is necessary to ensure that the sugar program operates at no cost, USDA will purchase surplus and other sugar acquired from processors, and then sell that sugar to bioenergy producers for processing into fuel grade ethanol and other biofuels. Competitive bids would be used by USDA to purchase sugar from processors, and also to sell that sugar (together with any sugar forfeited by processors) to ethanol firms.

In August and September 2013, USDA activated this program as remaining loans came due and sugar prices headed below effective support levels (**Figure 3** and **Figure 4**). USDA purchases of sugar first to preempt forfeitures, and the sale of this purchased and subsequently forfeited sugar, to ethanol processors and animal feed producers cost \$173 million. These actions removed 439,644 tons—4.9% of FY2013 domestic sugar production—from the supply side of the U.S. market.

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