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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) further 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—authorized by the 2008 farm bill and 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).

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 and beet sugar refiner sell 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 options available to beet sugar refiners and raw cane sugar mills, respectively, and show FY2013 loan rates and effective support levels.

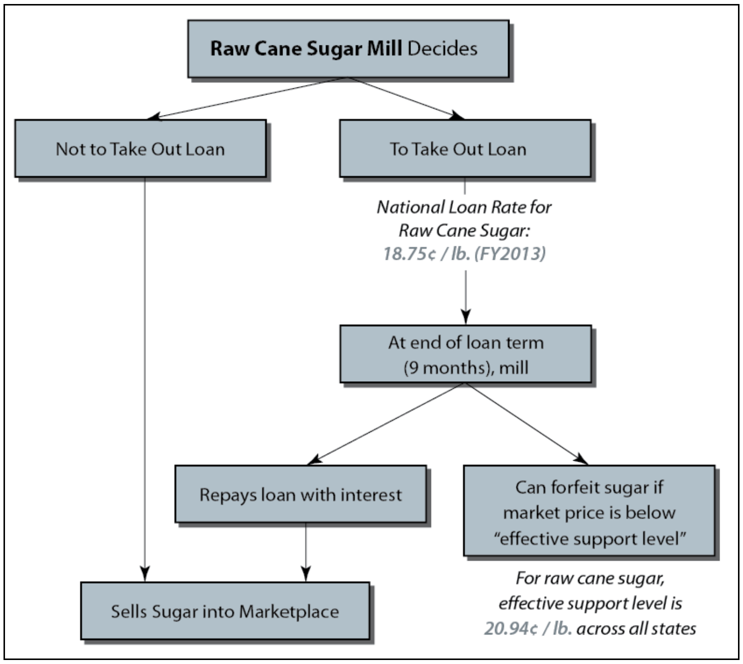
The price levels at which processors can take out loans are referred to as "loan rates." The raw cane sugar loan rate (18.75¢/lb.) is lower than the refined beet sugar loan rate (24.09¢/lb.) to reflect its unprocessed state. Raw sugar must be further processed by a cane refinery to have the same value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

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 20.94¢/lb.; for refined beet sugar it ranges from 24.0¢ to 26.2¢/lb., depending on the region.

If market prices are below these loan forfeiture levels when a price support loan 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.

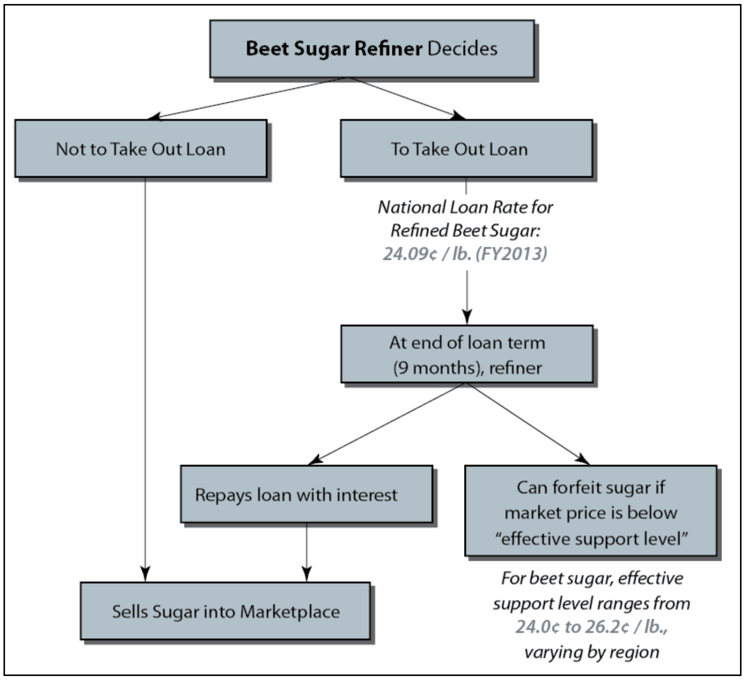
Market prices for raw cane sugar and refined beet sugar since the 2008 farm bill provisions took effect have been higher than loan forfeiture levels (**Figure 3** and **Figure 4**, respectively).

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



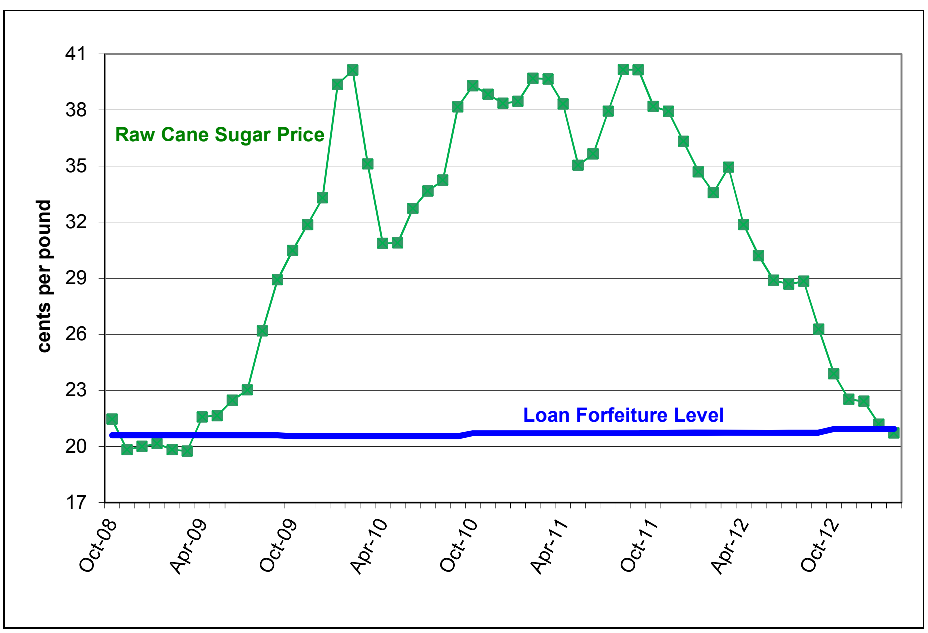
Note: As of March 12, 2013, mills that process sugarcane had placed 728,383 tons of raw cane sugar under loan. This represents 19% of USDA's March 2013 estimate of raw cane sugar production from the 2012 sugarcane crop. More will be placed under loan as processing of sugarcane continues through late winter.

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



Note: As of March 12, 2013, processors of sugar beets had placed 1,319,950 tons of beet sugar and in-process beet sugar under loan. This represents 25% of USDA's March 2013 estimate of refined beet sugar production from the 2012 sugar beet crop. More will be placed under loan as processing of sugar beets continues through early spring.

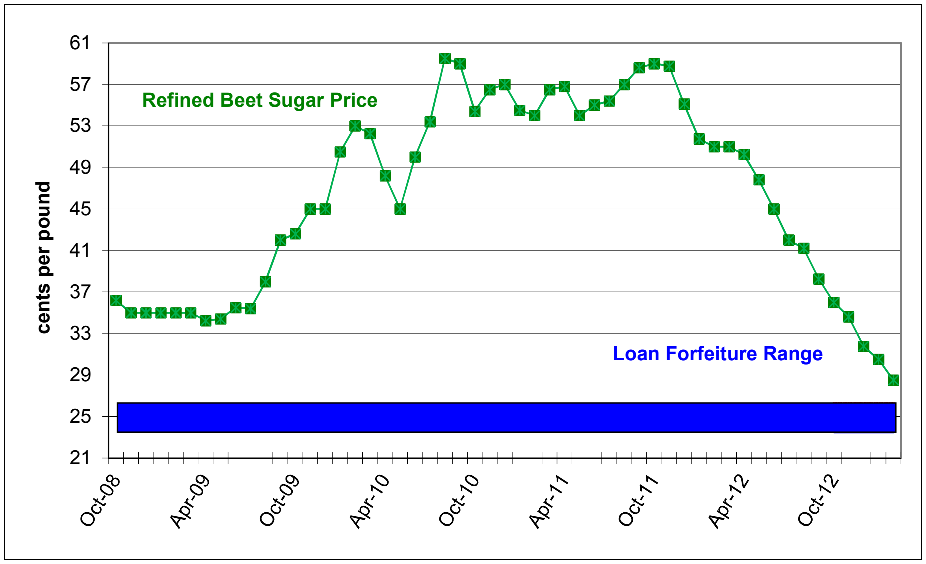
Figure 3. Raw Cane Sugar Prices Have Been Above Loan Forfeiture Level During Most of the 2008 Farm Bill Period To Date



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 Above Loan Forfeiture Range During Entire 2008 Farm Bill Period to Date



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*.

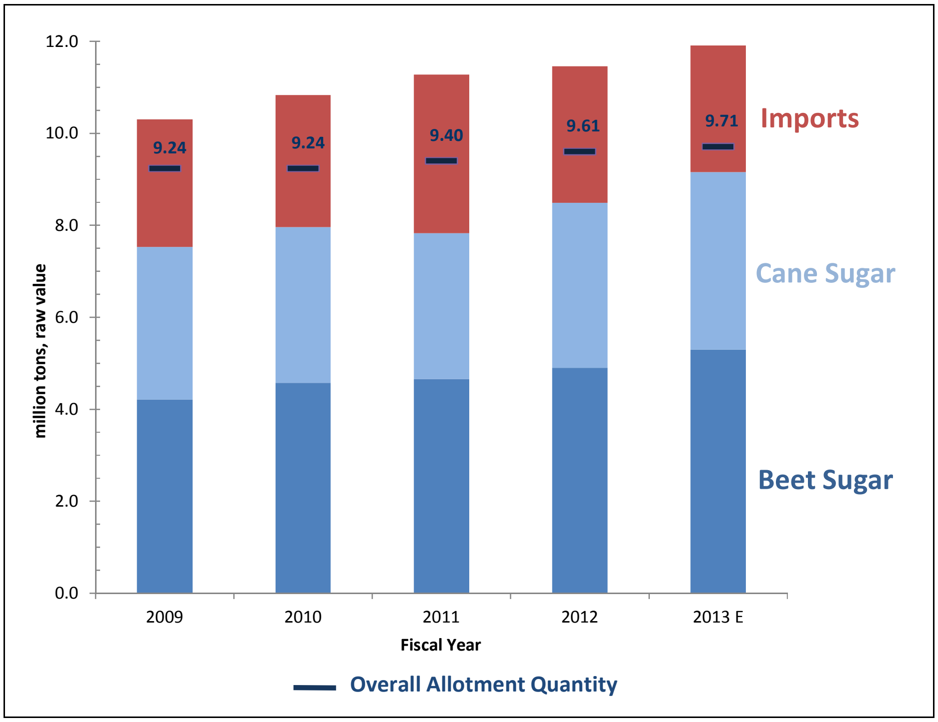
Marketing Allotments

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, 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 to FY2012, U.S. sugar production supplied almost 73% 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

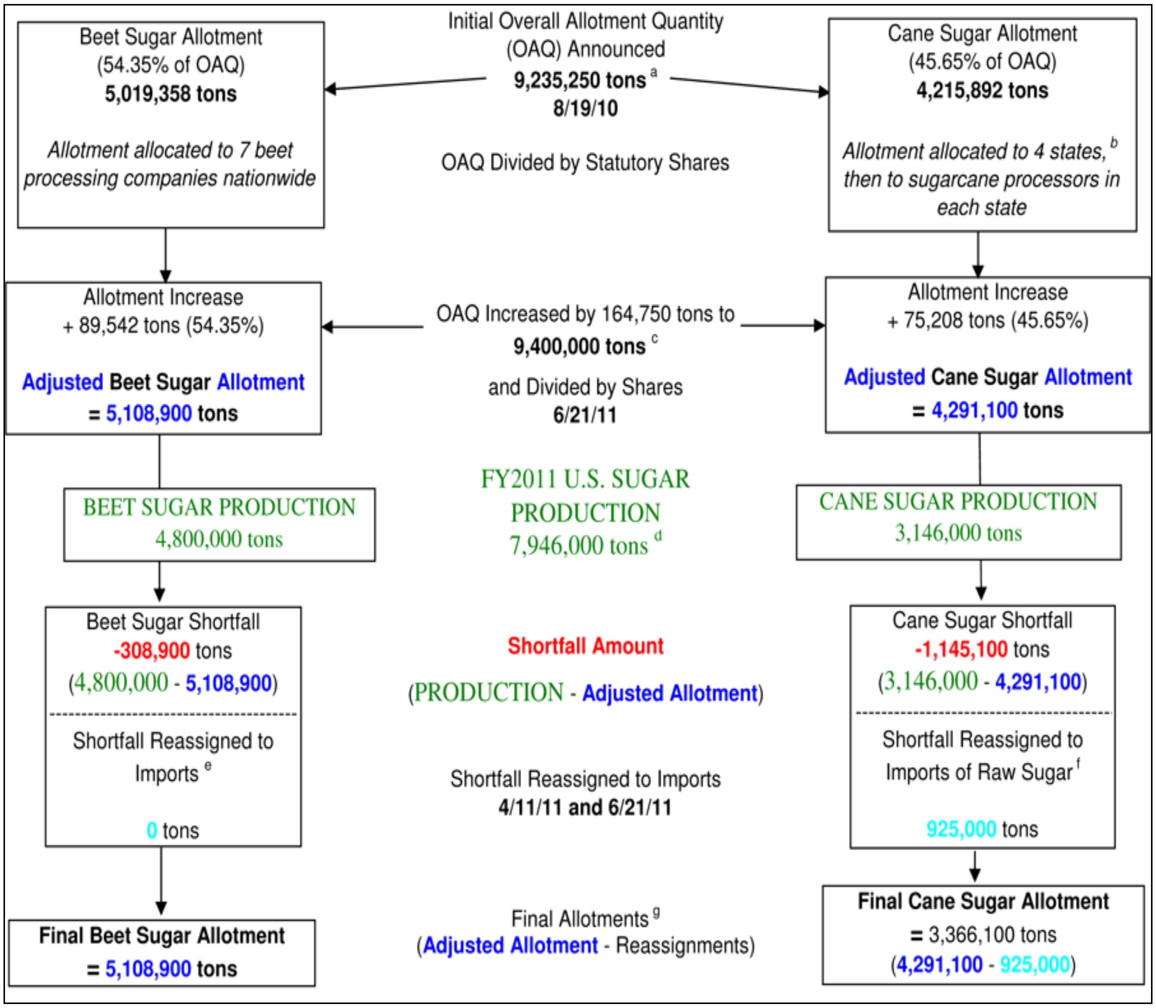


Source: Derived by CRS from USDA sugar program announcements, and USDA's World Agricultural Supply and Demand Estimates reports.

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 to FY2012, imports accounted for almost 28% 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 and Panama under separate free trade agreements.

Under NAFTA (North American Free Trade Agreement), 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 1.7 million tons (FY2011). 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.

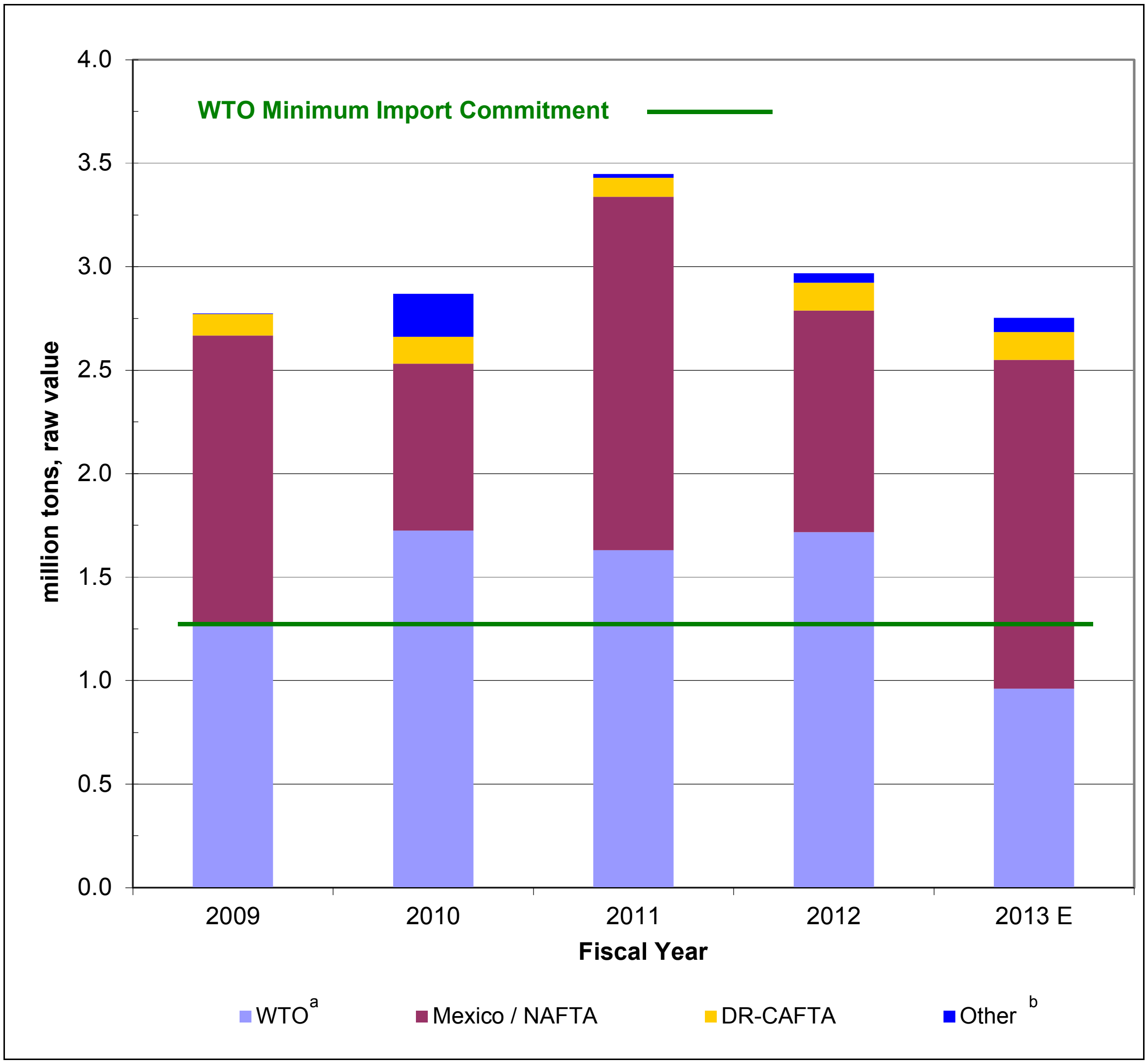
During the FY2009-FY2012 period, almost 53% of U.S. sugar imports entered under the U.S. WTO commitment. Mexico shipped about 41%, and the DR-CAFTA countries almost 4% (**Figure 7**).

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

At the beginning of the 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. **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



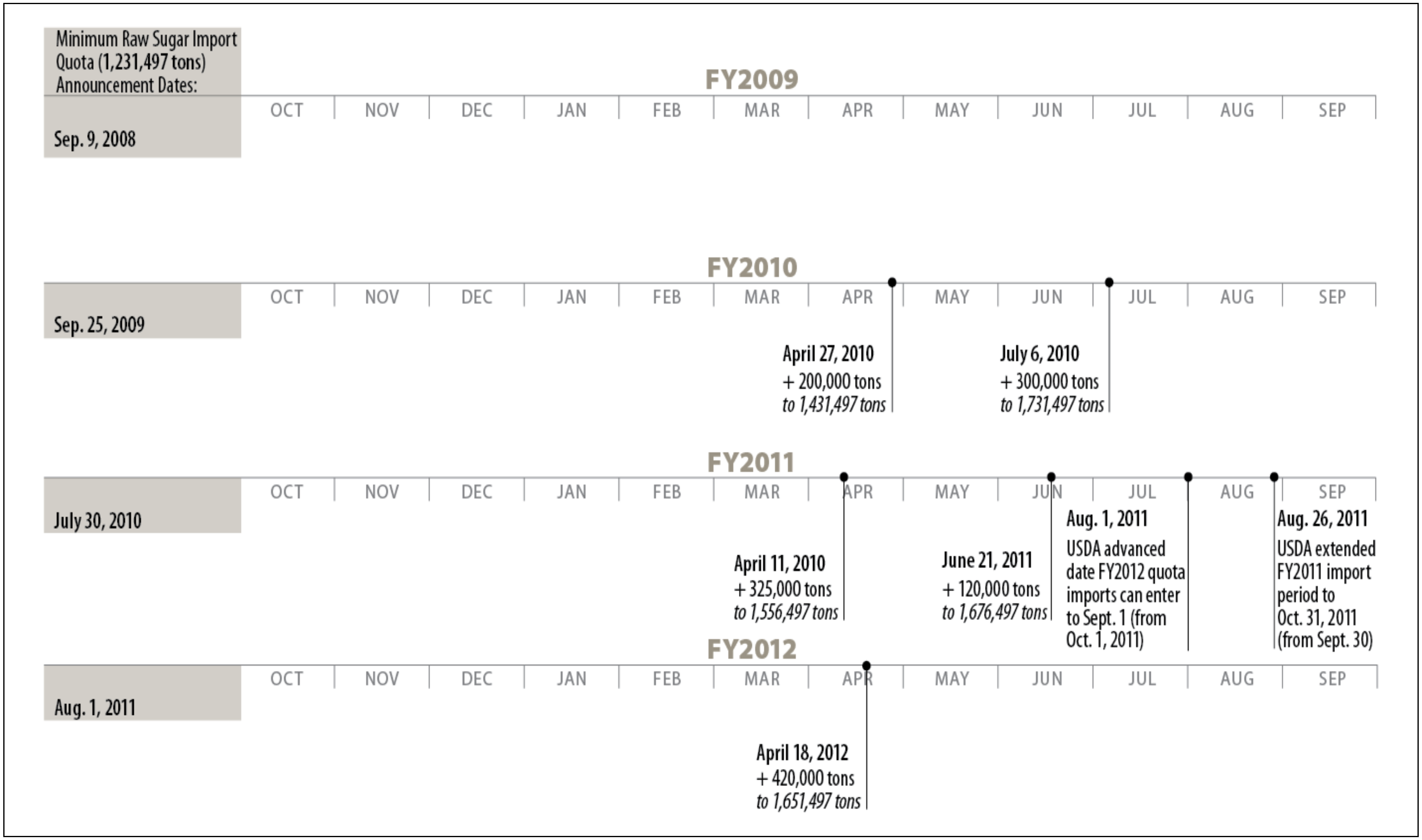
Source: USDA, Economic Research Service, Foreign Agricultural Service, and the World Agricultural Outlook Board.

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 400,000 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).

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. In FY2012 and FY2013, "Other" primarily refers to entries of sugar imports on preferential terms: from Colombia under the FTA that took effect on May 15, 2012, and from Panama under the FTA that took effect on October 31, 2012.

Figure 8. Timing of USDA Decisions on Increasing WTO Raw Cane Sugar Import Quota



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

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. When the Secretary of Agriculture determines that activating this program is necessary to keep prices above effective support levels, USDA will sell purchased surplus sugar and sugar acquired as a result of loan forfeitures, to bioenergy producers for processing into fuel grade ethanol and other biofuel. Competitive bids would be used by USDA to purchase sugar from processors, which it would then sell to ethanol firms. USDA would implement this program only in those years where purchases are required to avoid loan forfeitures and ensure that the sugar program operates at no cost.

USDA has not used this last-resort mechanism since authorized in the 2008 farm bill, because sugar prices have been above effective support levels. However, over the last year, raw cane sugar prices have fallen considerably and now are skirting the raw sugar loan forfeiture level (**Figure 3**). As a result, USDA faces the possibility of needing to decide this coming summer whether or not to activate this backstop to ensure that producers and processors receive the minimum price guaranteed by the sugar program.

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