IMPACTS OF FTAA INTEGRATION ON SUGAR MARKETS

PRELIMINARY DRAFT

By

David Orden

PROFESSOR, VIRGINIA POLYTECHNIC INSTITUTE

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This paper addresses the current policy regimes toward sugar among Western Hemisphere countries, the sugar production and marketing situations under these policies, and the prospects for sugar trade liberalization under an FTAA. The argument is presented that new policies will be required in many countries if sugar is to be included among commodities for which a regional free trade area can result in less market-distorting and trade-restricting policy interventions.

Achieving enhanced trade opportunities for sugar faces several conundrums. In the United States, which is the largest sugar consuming market in the region, domestic producers have vigorously opposed any change to the support policies and import restrictions that sustain domestic prices above world market levels. In recent farm policy legislation of 2002, the domestic sugar industry succeeded in tightening up the provisions of the U.S. regime, even though policy for most other supported crops has shifted away from high price levels and supply controls, and towards replacing these market-intrusive instruments with direct government payments to farmers. There will continue to be pressure for change for sugar because the price support and quantitative import restrictions that have been hallmarks of U.S.
sugar policy are becoming anomalous among agricultural support programs, Foreign access to
the U.S. market, which has been reduced dramatically during the past two decades, is now
bound by minimum quantity guarantees negotiated under international agreements. Pressure for
more market access is growing under NAFTA, possibly in the Doha WTO negotiations, and
potentially under an FTAA.

It is not just in the United States that sugar is highly protected within the Western
Hemisphere. Among other countries, there is a wide divergence of production costs and in the
degree to which benefits are derived, or trade opportunities thwarted, by domestic policies or
preferential access to foreign markets under the current sugar regimes. Any changes in sugar
policy from the status quo toward more open trade will have significant distributional effects
among FTAA countries as well as providing net efficiency and welfare gains. Given the extent
to which protection and support have been built into existing production localities and
marketing channels, reform of sugar market policies to enhance regional trade opportunities will
provide a classic illustration of the dual (distributional and net) effects of freer trade.

The organization of the paper follows from these observations. After reviewing the
current situation with respect to sugar production, marketing and policies, the argument is
presented for a new sugar regime region-wide. The new regimes would have as its basic
principle the integration of the sugar market. Prices would be freed up to allow the market to
clear in respond to supply and demand, with trade flows unimpeded by border restrictions. The
FTAA objective would be to achieve elimination of trade barriers within an adjustment period
of no more than ten or fifteen years. Several empirical studies evaluating the impact of such a
regime change are reviewed.

The author is professor of agricultural and applied economics, Virginia Tech, Blacksburg, VA
The final section of the paper examines some transition, or possibly permanent, policy options that would facilitate achievement of freer regional trade in sugar. It is argued that a shift toward direct payments to farmers may provide a useful adjustment mechanism. Such “cash out” policies were implemented in the United States in 2002 to replace high internal prices and domestic production quotas for peanuts with direct payments to historic producers and quota holders. This recent policy change is examined, and options for extending such change to sugar are considered. Options are also examined for extending alternative support to sugar producers in other countries who are adversely affected by freer regional trade within an FTAA.

**FTAA Sugar Production, Consumption and Trade**

Recent production, consumption and trade of sugar by FTAA countries is shown in Table 1. Brazil, the United States, Mexico, Colombia, Argentina and Guatemala are the largest sugar producers and, except for Guatemala, are also large sugar consumers. Nine of the 28 countries are net sugar importers; the remaining countries are net exporters. Canada and the United States are the two largest importers. These two countries account for three-fourths of aggregate imports within the FTAA region, imports that total about 3,600 thousand metric tons raw sugar value. Brazil and Guatemala are the largest net exporters. Brazil alone accounts for exports of 8,720 thousand metric tons, more than double the total sugar imports within the FTAA region. When taken together, the FTAA countries are net exporters of 8,423 thousand metric tons of sugar.\(^2\)

Costs of sugar production vary widely among countries. The best-known cost-of-production comparisons are constructed by LMC International. In general, their analysis suggests that Colombia, El Salvador, Guatemala, and parts of Brazil are the lowest-cost regional

\(^2\) Additional analysis of the sugar sectors of various countries will be provided in a subsequent version of the paper.
producers. At the opposite extreme, the Caribbean countries generally have high production
costs. The Caribbean countries are net exporters of 303 thousand metric tons of sugar. This is a
relatively small amount compared to regional totals but accounts for about one-third of Caribbean domestic production. The high-cost Caribbean producers protect their domestic sugar markets and remain net exporters because of preferential treatment received in several protected export markets, particularly the United States and the European Union. For the Caribbean, the preferential access to the U.S. market in 2001 occurred under tariff-rate quotas (TRQs) totaling 226.2 thousand metric tons, nearly three-quarters of their exports. In contrast, the U.S. TRQ for Brazil (of 152.7 thousand metric tons) was less than 3 percent of its export quantity. This contrast foreshadows that any substantive change in sugar policy regimes will have significant differential impacts across FTAA countries.

**Policies in the United States and Other FTAA Sugar Importing Countries**

To achieve integration of the regional sugar market with substantial reduction or elimination of existing trade barriers will require changes in policy both among importing countries and by some exporters. Among the major importers, Canada produces very little sugar domestically, and hence imposes few trade barriers. The United States produces most of its sugar internally and has long maintained domestic price supports and import restrictions. Herein, the focus is on four recent developments that have affected, or may soon influence, U.S. sugar policy.\(^3\) These are 1) the sugar provisions of the 1996 farm bill, the Federal Agriculture Improvement and Reform (FAIR) Act; 2) revisions to sugar policy in the 2002 farm bill, the Farm Security and Rural Investment Act (FSRIA); 3) agreements on sugar under NAFTA, along with recent disputes about the interpretation of those agreements; and 4) sugar commitments under the Uruguay Round WTO agreements and possible further commitments under the current Doha negotiations.

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\(^3\) Again, additional analysis covering other countries will be provided in a subsequent version of the paper.
The 1996 U.S. FAIR Act

The basic features of the 1996 FAIR Act for exported crops such as wheat, feedgrains, rice and cotton are well known: decoupling of payments to producers from market prices and planting decisions, planting flexibility and elimination of annual acreage reduction programs (ARPs), and capping of loan rates at what seemed, at the time, to be low levels. Yet even when it was enacted, the FAIR Act did not put U.S. farm policy on a new strategic path to reform.\(^4\)

The reform path Congress took in the FAIR Act was instead the familiar one of a heavily compensated cash out of farm programs. Still, it represented a step toward less market intervention in many farm support programs, and potentially increased pressure for reform in sugar as well.

The FAIR Act kept sugar price supports fixed nominally at pre-existing levels (18 cents per pound for raw cane sugar and 22.9 cents per pound for refined beet sugar). Producers could forfeit their commodity to the government’s Commodity Credit Corporation (CCC) under non-recourse loans at these rates, so no immediate liberalization was achieved. Small changes in the program were made; in particular, a one-cent per pound forfeiture penalty was adopted and provisions were passed stipulating that CCC loans revert to a recourse basis (that must be repaid) if low-duty TRQ imports were to drop below 1.5 million tons, potentially reducing the role of the loan rates as a price support mechanism. The FAIR Act also eliminated the requirement that the sugar program operate at no net budget cost to the government, a change in

\(^4\) Orden, Paarlberg and Roe (1999) identify four reform strategies (cutout, squeeze out, cash out and buyout) depending on how fast the policy change occurs and whether or not past program beneficiaries receive compensation. The FAIR Act did not achieve a cutout, because permanent legislation was left in place and generous cash subsidies provided to farmers in the short run. Just as clearly Congress was not advancing a squeeze out with the FAIR Act, because the generous new decoupled payments it authorized were much greater than expected, and so unencumbered by regulations and easy for farmers to obtain that voluntary program participation increased. The FAIR Act also failed to ensure a buyout of farm programs, because it maintained permanent legislation and a baseline for continued farm program spending.
legal status that technically created room for intrusive CCC expenditures, or perhaps for liberalizing direct payments. None of this was eminent at the time the FAIR Act became law: agricultural prices were high and sugar imports were well in excess of the recourse loan trigger.

**The 2002 U.S. FSRIA**

Since 1996, much of the reform promise of the FAIR Act has dissipated. Low farm prices beginning in 1997 and lasting through 2001 brought increased annual appropriations for farm income support, increased crop insurance subsidies, and ad hoc disaster relief expenditures. In 2002, Congress passed the FSRIA, replacing the FAIR Act one year before it was scheduled to expire. For exported commodities, the FSRIA extended FAIR-Act fixed decoupled payments and introduced additional counter-cyclical payments to be made on specified base acreage and yields when prices were below delineated levels. Planting flexibility was retained by farmers receiving these payments, but they were allowed to update their base acreage (for both payments) and yields (for the decoupled payments only). Oilseeds became a base crop for payment purposes and the budget baseline committed to agricultural support rose substantially. Most price support loan rates were also adjusted up slightly and new crops became eligible for loan rate supports.

For sugar, a policy crunch began in 2000 when domestic production plus minimum imports to which the United States had committed exceeded domestic consumption and private stock-building demand at the supported domestic price. To sustain that price, the CCC accumulated sugar stocks and the USDA offered a sugar “plow down” in which it exchanged stockpiled sugar for destruction of some of the planted new sugar beet crop. The alternative of letting the domestic sugar price fall was rejected by domestic producers at this time. In the subsequent year, a payment-in-kind (PIK) program was initiated to trade CCC stockpiled sugar
for reduced beet planting to avoid plowing down a growing crop. Supply pressure on the sugar market eased, lessening political pressure for reform.

In the 2002 FSRIA, domestic producers succeeded in tightening the provisions of the sugar support policies. The loan rates were retained at the levels of the 1996 bill. The forfeiture penalty was eliminated, marketing assessments adopted previously to provide a small amount of government revenue were ended (retroactive to October 2001), and interest rate on CCC loans were reduced, making the sugar program more lucrative for producers. More fundamentally, the new farm bill reinstated the stipulation that the sugar program be operated to the extent possible at no net cost to the government and authorization continued for a PIK. Authority was restored to control supply through domestic marketing allotments as long as imports were below 1,360 thousand metric tons. The combination of the no-net-cost provision and constraint on use of domestic marketing allotments if imports exceeded the level set in the legislation was designed, in the words of the U.S. producers, to ensure that the USDA and U.S. trade representative stood “shoulder to shoulder” with the domestic industry in opposing loosening of import restrictions. Together these provisions tie the hand of policy administrators: imports above 1,320 thousand metric tons can not be offset by domestic marketing allotments to sustain the supported price, while allowing imports to exceed this level would induce violation of the no-net-cost provision if CCC stockpiling were to result. Thus, the sugar program has to continue to be administered with tight import restraints, which sets the farm bill firmly against sugar trade liberalization.

**NAFTA**

The agricultural trade negotiations for NAFTA were contentious (see Orden, 1996). The Bush administration insisted that agriculture be included under the long-run goal of eliminating barriers to trade, and achieved commitments to this end with Mexico but not Canada.
Elimination of agricultural trade barriers was to be accomplished over adjustment periods of five to fifteen years, with the most highly-protected commodities in each country subject to the longest squeeze out of that protection. Sugar producers in the United States formed one of the most vehement groups of NAFTA opponents, while support of the Florida congressional delegation became crucial to passage of the required implementing legislation. Complex adjustment-period rules were first negotiated to delay a common market for sugar between Mexico and the United States. Then, as the new Clinton administration brought the trade agreement to Congress, these rules were revised in a “side letter” detailing adjustment-period commitments between the two countries. Two issues thus arise: those concerning the operative rules during the adjustment period to 2008, and those with respect to the final agreement for bilateral elimination of sugar trade barriers.

Sweetener trade flows during the adjustment period have remained mired in conflict (Haley, 1999; Haley and Suarez, 2002). Mexico protects its sugar sector, and under this regime Mexican output has increased from a low level of 3.8 million metric tons raw value in 1994 to over 5 million tons in 2002. As Mexican sugar stocks have accumulated, differences in interpretation have emerged about the commitments in NAFTA versus the side letter regarding duty-free Mexican access to the U.S. market under a TRQ. Mexico has taken various trade-restrictive steps on corn sweeteners (including anti-dumping duties, taxes of soft drinks produced with corn sweeteners, and imposition of TRQs), basically arguing that the U.S. has not complied with NAFTA commitments on sugar access. Meanwhile, the high U.S. tariffs on sugar imports outside of TRQs have been falling for Mexico under NAFTA: from 16 cents/pound in 1994 to 7.56 cents/pound effective January 1, 2003, with further declines scheduled in following years and the over-quota tariff to be eliminated completely in 2008.
With low world sugar prices since 1998, even with the tariffs, over-quota imports from Mexico become within the realm of feasibility. The Mexican government has imposed restraint toward authorizing such sales but high-tariff imports (outside the TRQ) become increasingly likely as the over-quota tariff comes down. While much of the U.S.-Mexico consultation and dispute over sugar has focused on short-term access questions, the common market that emerges in 2008 looms ever closer on the horizon. Once the tariff squeeze out is complete, NAFTA and the side letter contain no explicit trade restraints, other than imposition by Mexico and the United States of a common external tariff. In principle, if Mexican sugar production were to exceed domestic consumption at that time, the full excess could flow into the U.S. market. This inflow would butte up against the provisions of the new U.S. farm bill.5

**The WTO Uruguay Round Agreements and Doha Negotiations**

The Uruguay Round Agreement on Agriculture guaranteed only minimal multilateral agricultural market access under TRQs, together with limited commitments to expand this access and to lower the high (often prohibitive) over-quota tariffs through 2000. Sugar imports by the United States exceed the general TRQ minimum market-access guarantees of 3-5 percent of domestic consumption. The U.S. made a commitment instead to a minimum TRQ sugar import level of 1.256 million short tons raw value. At the time, U.S. imports exceeded this level substantially, so the U.S. commitment was not viewed as a significant trade liberalization step. The Uruguay Round Agreement also prohibits introduction of new export subsidies. This precludes the United States from adopting a European Union (EU) type of regime, both

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5 Further discussion of the sugar and corn sweetener disputes between Mexico and the U.S. will be included in a subsequent version of the paper. The squabbling during the phase-in period suggests that there may not be a smooth transition to the unrestricted trade envisioned for 2008 under the NAFTA provisions.
importing sugar under high domestic prices to meet its Uruguay Round commitment and selling domestically-produced sugar at a lower world price with an export subsidy.

Unlike the U.S.-Mexico commitments in NAFTA, the Uruguay Round Agreement does not encompass a long-term schedule for removal of agricultural trade barriers. Negotiation of further agreements on agricultural support and trade policies are underway under the WTO Doha Development Agenda. Recently, (July 25, 2002) the United States tabled a proposal for commitments on agricultural trade. Among its provisions, tariffs would be reduced using the Swiss formula. This would bring the bound tariff applied to U.S. sugar imports down dramatically—from 195 percent including special safeguards, to around 22 percent (Tsigas and Boughner, 2002). Such a dramatic tariff reduction, if enacted, would again butte up against the new U.S. farm bill. One conundrum facing sugar policy within the FTAA too is the pending head-on confrontation between multilateral or regional trade reform proposals and intransigence around existing policies that continues to be written into U.S. farm program legislation.

Policies in Brazil, Mexico and Other FTAA Sugar Exporting Countries

To be included in subsequent version of the paper.

Achieving Substantial Sugar Trade Liberalization Under an FTAA

While there is no certainty that sugar trade liberalization will be included in an FTAA, for the remainder of this paper I will assert that such reform is a desirable policy outcome. On this basis, some of the likely impacts of reform are examined, adjustment programs that might facilitate reform are considered, and obstacles to and the feasibility of such an outcome are discussed.

Let me highlight three positive objectives of FTAA sugar market liberalization. These are:
1. To create a sustainable long-run policy with greater market orientation, increased integration and more open trade;

2. To free up prices to allow the integrated market to clear and set stocks valuation in response to supply and demand;

3. To avoid out-dated and costly interventions either through government involvement in purchases, forfeitures, stockholding, and stocks disposal, or through resort to government-managed domestic marketing allotments or production quotas.

The basic argument for such policies is that they are efficient and welfare-enhancing and are consistent with the overall objective of broad trade liberalization under an FTAA. Sugar is an essentially homogeneous commodity for which several developing countries are low cost producers. Thus, sugar is a prime candidate for policy reform to increase trade opportunities of developing countries: presumably developed countries would achieve compensating market-access gains in other areas under a full free trade agreement. The sugar policy reform issue is also complicated in an FTAA by the bifurcation among developing countries, with some countries being the beneficiaries of preferential market access under current policies and having imposed domestic protection that would be reduced under a fully-implemented FTAA reform.

A number of empirical studies shed light on the likely impacts of sugar market liberalization. In one benchmark study, Borrell (1999) utilizes a detailed multilateral model delineating 24 countries/regions and seven classes of sweeteners to examine the long-run price, trade and welfare effects of full liberalization of world sugar markets. In his analysis, multilateral liberalization results in a 25-percent decline of the U.S. sugar price, while the world price rises by 38 percent. U.S. imports increase around 5 million metric tons with liberalization. Consumer gains are nearly $1.2 billion for the United States, while U.S. producer income falls by $0.7 billion, leaving a net estimated gain of $0.5 billion. Worldwide net gains are nearly $5.0 billion.
Haley (1998) constructed a more detailed U.S. model with separate short-run (processing capacity fixed) or long-run (processing capacity adjustable) supply functions for nine domestic regions, and a complex three-stage demand structure for six types of industrial sweetener users and a two-stage structure for non-industrial sweetener consumption. Foreign excess supply is compressed into an aggregated elastic upward-sloping function. For a unilateral liberalization by the United States, Haley also finds a domestic price decline of around 25 percent. His equations yield a fairly price-responsive (but still inelastic) demand structure. When the U.S. price falls, domestic production declines by 2.5 million tons (28 percent) in the long run. Demand expands nearly proportionately to the price decline, so imports rise by almost 5 million tons, causing the world price to nearly double. Haley estimates smaller consumer gains ($0.67 billion) and total producer losses ($0.64 billion) than does Borrell for multilateral liberalization. Haley notes that his demand structure is the most obvious difference between his study and those indicating larger distributional and net effects from changes in sugar policy.

Another modeling study of the economic effects of the sugar program was conducted by the GAO (2000). The study utilizes the CARD global sugar model from Iowa State University, augmented to include domestic supply linkages to the corn, high-fructose corn sweetener (HFCS) and wheat markets, and to evaluate separate effects on domestic cane and beet producers, corn producers, sugar beet processors, HFCS producers, and cane refiners. The GAO estimates that the sugar program cost domestic sweetener users $1.5 billion in 1996 and $1.9 billion in 1998, while cane and beet producers received benefits of about $0.8 billion in 1996 and $1.0 billion in 1998. For unilateral U.S. liberalization, this study finds that domestic raw and refined sugar prices fall around 40 and 25 percent, respectively, while world prices rise 10
to 20 percent. With highly inelastic supply and demand assumptions, domestic harvested acreage falls by less than 5 percent, while imports rise by 1.1 to 1.6 million tons.

Among recent studies that focus on the FTAA region, Tsigas and Boughner (2002) utilize a modified Global Trade Analysis Project (GTAP) model to examine the effects of unilateral U.S. sugar trade liberalization with the Americas. Their model includes nine regions but aggregates Central America and the Caribbean, precluding examination of differential effects among several low and high cost producers. Tsigas and Boughner find that U.S. liberalization results in a drop in domestic sugar production that is moderated in their analysis by continuation of the U.S. loan rate support program. Wholesale U.S. prices are not supported in this scenario, and drop by 84 percent, with sugar imports doubling. Sugar exports to the U.S. increase for Mexico, Central American and the Caribbean, Brazil, and the rest-of-South America.

Additional studies to be examined in subsequent version of paper.

Adjustment Alternatives to Facilitate Sugar Market Reform

With possible sugar market reform having such substantial impacts, the question arises of whether adverse impacts on producers can be moderated, in part to facilitate a move toward trade liberalization. Herein, such adjustment policies are considered, first for the United States and then for other countries in the region.

Cash-Out Options for U.S. Policy

A variety of cash out options can be constructed to make U.S. sugar policies more similar to those adopted in farm policies for other supported crops. Here, three possibilities are considered: direct payments on all output, direct payments on a fixed volume of output, and fully decoupled payments. These three options parallel the historical development of the cash
out that has occurred for other field crops, and each moves sugar policy in that direction. The first two options involve retaining loan rates at their existing levels under the FAIR Act and FSRIA, and providing a loan deficiency payment (LDP) when the market price is lower. The third option goes further and eliminates payments tied explicitly to sugar production. This would entail lowering the sugar loan rates to levels below generally-expected market clearing prices. The loan rate mechanism (with forfeitures) would then provide a “safety net” against extreme price volatility but would usually not provide an incentive-distorting price floor.⁶

A policy of direct payments of the difference between the market price and specified support price is an open-ended producer subsidy scheme when payments are made on all output. The price-induced distortions to resource use, and the level of sugar producer surplus, are largely unchanged compared to the existing programs if the support prices are set at existing loan rate levels. The loan rate remains the incentive price for production, while the market clears at a lower price, reducing the consumer distortion of current policies. This is a “half shot” of reform, but allows consumption to increase and the market to clear, while producers continue to receive a supported price. Such reform would realign U.S. policy to accommodate any

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⁶ The economic costs of the U.S. sugar program have led to many calls for policy alternatives, including calls specifically for a shift to direct payments—a “cash out.” Deficiency payments were one option examined by USDA at the behest of Congress when importation of Cuban sugar was barred in the early 1960s. Snape (1963) demonstrated that protection through deficiency payments instead of trade restrictions would have raised U.S. consumption, world prices, and export earnings of developing countries; later Schmitz (1984) discusses deficiency payments as one alternative to import restrictions; and Sturgiss, Field and Young (1990) argue that the United States could adopt less costly trade-neutral direct support policies. Krueger (1991) points out that sugar deficiency payments might have moderated the substitution of HFCS for sugar, then notes the irony of corn growers opposing a regime with such payments as creating “unfair competition.” For a short period in 1977, when the sugar program had not been renewed because of high world sugar prices during the mid 1970s, the United States fell back on permanent legislation authorizing deficiency payments, but thereafter import protection through duties and subsequent import quotas was enacted. Krueger describes an unsuccessful endorsement of deficiency payments by the Sugar Users Group in 1978, while Jabara and Valdes note that the Reagan administration was unable to attain congressional support to introduce a deficiency-payments policy in 1987. Political opponents of the sugar support program have since turned instead to the more radical cutout alternative, again without success. Cutout proposals were defeated when the FAIR Act was considered in 1996. Subsequent attempts to lower sugar price supports have also been rebuffed in Congress.
market pressures arising from existing international commitments for sugar imports, and to accommodate international market-access negotiations in the WTO or FTAA.\(^7\) If border policies were unilaterally liberalized, while U.S. production remained at pre-liberalization levels because of the price supports, the world price would rise less than with full unilateral trade liberalization. Using Haley’s model, this effect would be for the world price to rise by about 3.5 cents/pound less. At the resulting lower world price, U.S. consumption (and hence imports) would increase by about 4 million tons (compared to an increase of imports around 5 million tons under his free trade scenario with reduced U.S. production).

Compared to a minimal cash out, additional reform is achieved if direct payments are made only on a fixed quantity of output. If acreage and yield-enhancing decisions are separable, and if the direct payments are made on a “per acre” basis, then the payments still provide an incentive to keep acreage in production, but not to apply inputs or adopt new technology to raise yields at the margin. If the fixed level of output receiving the direct payment is the full amount of recent domestic supply, little production reform occurs initially, while consumer gains are achieved as above. But over time, if the quantity receiving support is restricted, less incentive is provided to expand production and processing capacity.

The most ambitious form of cash out would make fixed payments to sugar producers that are not linked to continued production, by providing FAIR-Act style decoupled payments. With this full decoupling, production distortions would be reduced. The domestic market price would be the incentive price determining output levels, and land and other resources would flow into their best uses. If border policies were liberalized along with provision of decoupled

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\(^7\) I have earlier pointed out that a minimal cash-out proposal along this line need not involve any immediate change in U.S. border policies or import obligations. Thus such a cash-out reform need not be subject to the frequent producer complaint that unilateral reform would expose U.S. producers to competition from subsidized production abroad, in what they tend to call the “dump world market” (Orden, 2000).
payments, the production and consumption outcomes would be nearly equivalent to a free trade scenario, while incomes of producers would be sustained.

It is less costly to maintain producer welfare with decoupled payments than with payments that retain production distortions. Using Haley’s results, to maintain producer revenue at its base level from the existing program requires an expenditure of at least $770 million.\(^8\) In contrast, to maintain only the producer surplus of sugar producers at the level they achieve under the existing programs requires an expenditure of $438 million.\(^9\) Thus, fully decoupled payments are a less costly cash-out policy than direct payments tied to production levels. Put another way, using Haley’s model, payment in the long run of more than about one-half billion dollars would overcompensate current sugar producers if fully decoupled payments are the cash-out policy, while payments of even twice as much might under-compensate those producers if the cash-out expenditures are tied fully to the level of domestic output.

**Cash-out Options for Other High-Cost Producers**

To be completed in a subsequent version of the paper. Is there a constructive IDB role?

**Obstacles to U.S. Sugar Policy Reform**

There are a number of obstacles to a cash out of U.S. sugar policy that would facilitate trade liberalization. These include the transparency of direct payments, federal budget constraints, the distributional effects of potential retention of gains by industrial sweetener users, and sugar producer and processor opposition.

**Transparency**

\(^4\) Haley’s base U.S. production under the sugar program is 8.96 million tons priced at $370/ton, for revenue of $3.30 billion. Under liberalization, output is priced at $283/ton, which would be revenue of $2.53 billion if the initial production level were maintained. But recall that with cash-out payments still tied to production the world price is lower than in Haley’s liberalization scenario, thus deficiency payments based on the difference between the world price and a target price would be higher; in my crude calculations based on Haley, by as much as $625 million ($70/ton x 8.96 million tons).
Transparency is usually viewed as a desirable attribute of government policy, and direct cash payments are more transparent than the support delivered by maintaining high market prices. However, the transparency of direct payments are a liability to engineering a shift toward a cash out in the case of sugar. Turning support toward direct payments makes explicit the concentration of benefits from sugar support prices. The numbers are striking but double-edged. The sugar program benefits just 9,000 beet farmers, and 1,000 cane farmers. Based on the calculation by Haley, producer surplus benefits average $43,800 per farm, while total revenue gains are much higher. The large cane farms average nearly twenty times as much acreage as the average beet farm (over 3000 acres, versus less than 200). The concentration of benefits from the sugar program on these large farms provides reform advocates with a strong equity argument for change. But if direct payments are made on a proportionate basis, and to both small and large producers without limitation, it detracts from the appeal of a cash out as that change. Hence, the stalemate prevails, which leaves large producers attaining the benefits.

**Budget Constraints**

A second obstacle to engineering a cash out arises from federal budget rules. Programs with more political appeal than cashing out an archaic sugar policy continually make demands on the federal purse, and enthusiasm for tax cuts has not completely waned in the United States, while budget deficits have re-emerged after a few years of surpluses. Congressional pay-as-you-go rules are still in place. Thus, any proposal scored as increasing budget outlays has to demonstrate offsetting revenue increases or budget cuts. In this respect, replacement of the FAIR Act by FSRIA imposes an additional budget burden on sugar reform. The FAIR Act decoupled corn producer payments from market prices. Under FAIR, a sugar cash-out reform

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5 Haley also calculates a loss to fructose producers of $203 million, resulting in his total producer loss of $0.64 billion. I do not consider compensation issues with respect to domestic fructose producers.
that might lower demand for corn sweeteners, and hence corn prices, would not have been scored under budget rules as having a secondary cost associated with higher corn payments, but it would with the counter-cyclical payments under the FSRIA. The direct cost of the sugar payments become part of the budget calculations in both cases.

**Retention of Gains**

One argument that supporters of the current sugar program have used against reform has been that lowering sugar prices would result mainly in increased profits for large industrial sugar users, not lower product prices for consumers. The argument is often brandished for rhetorical effect: it plays on an anti-corporate theme that has a constituency, and in the process neatly turns the argument away from the inequity of implicit taxation of consumers to benefit rich farmers. Reform advocates have responded with rhetoric of their own, primarily the counter-claim that sweetener-user industries are final-customer oriented and competitive. But even when a processing industry is competitive, it may benefit from reduced input costs. To the extent this occurs, it changes the distributional impacts of sugar policy reform compared to a simple consumer and producer surplus argument.

**Producer Opposition**

The most formidable obstacle to U.S. reform remains opposition from sugar producers and processors, who have been able to dominate legislative outcomes as shown in 2002. As long as the sugar producing industry views the existing program as advantageous, and exposure to direct payments as undesirable, it will continue to marshal arguments against reform: among these arguments, that the existing program provides market stability, that it has no budget cost, that liberalization by the United States would be unilateral disarmament in the face of European and other subsidies, that lower prices benefit industrial users, and so on. Reform advocates can
try to counter such arguments, and a cash-out reform proposal is less abrasive than a cutout, but there is little in the history of cash outs for other commodities to suggest there will be movement along this path unless at least some producers endorse such a change.

Obstacles to Sugar Policy Reform Among Other FTAA Countries

To be completed in a subsequent version of the paper.

Is Sugar Trade Liberalization Possible?

After nearly forty years in which sugar trade liberalization has been tossed around conceptually but tossed out politically, can a case be made for an FTAA that a nexus of policy constraints has emerged such that liberalization is, or is looming as, a viable policy option? Taking much of the above analysis into account, there appears to be an irresolvable conflict between domestic policies of importing countries such as the United States and the prospect of sugar trade liberalization in the FTAA. But NAFTA also demonstrates that sugar can be included in trade liberalizing agreements, despite vehement domestic producer opposition. How much posturing is involved in the industry position as reflected in the 2002 farm bill? How much pressure will trade negotiators be willing to bring to bear against the existing sugar regime? What willingness is there in the industry to adopt to change—particularly if it includes cash-out compensation payments as described herein?

U.S. Peanut Program Reform in 2002 as a Possible Template for Sugar

With respect to the these questions, there is one aspect of the 2002 FSRIA that warrants additional comment. In the 2002 bill, a regime for edible peanuts of domestic price supports well above world levels, combined with long established quotas on the domestic production eligible for the domestic market, was scrapped in favor of direct cash payments. This change in policy may hold promise as a template for similar reform in sugar.
Background

The Agricultural Adjustment Act of 1938 authorized the Department of Agriculture (USDA) to establish acreage allotments to limit the production of six crops (wheat, corn, cotton, rice, tobacco and peanuts) in conjunction with providing price support through loan rates at which farmers could forfeit output to the CCC without penalty. Additional legislation in 1941 specifically established production restrictions for peanuts (CRS, 2001). The government limited the quantity that could be produced for the domestic market by awarding acreage allotments to farmers who had a history of producing peanuts. The allotments were based on a percentage of historic acreage.

Under the legislated support policies, domestic producers with acreage allotments received preferential prices for peanuts supplied to the domestic market for edible uses compared to prices they receive for peanuts going into processing (crushing into oil and meal) or exports. Access to the domestic edible market by foreign competitors was restricted by import quotas. Thus, the acreage allotments created an income stream from higher prices received exclusive to those farmers who had received an allotment. Farmers without such allotments were barred from producing peanuts for the domestic edible market and did not receive the same price support guarantee. Farmers who did not have allotments could only sell their peanuts for processing (sometimes called non-edible) domestic purposes or in foreign markets.

Until the 2002 FSRIA, peanut policy continued to restrict production for the domestic edible market and to provide price-support loan rates that were higher for domestic edible peanuts than for other uses. In 1981, acreage allotments were converted to specific poundage quotas, with the producers who had allotments being granted the quota eligibility to sell a
certain quantity of peanuts (instead of the output from a certain acreage) in the domestic edible market. Initially quota peanuts had to be grown on the land of the quota holder. The planting restriction was eventually eased to allow quota peanuts to be produced on the property of the renter or even on land rented from a third party. However, regardless of whether the quota was sold or rented, the production of quota peanuts had to be in the county where the original quota land was titled.

The 1990 farm bill legislated a minimum national poundage quota and support-price escalator that raised the loan rate based on increases in production costs. The national minimum quota was set at 1.35 million tons (2,700 million pounds) and the loan rate for quota peanuts was set at $678/ton ($0.34/lb). The average effective national quota during 1993-1995 was about 1.5 million tons. The effective quota was nearly 80 percent of the average total national peanut production, but exceeded domestic edible peanut consumption by about 50 percent.

With this difference between the effective quota and actual domestic demand, the CCC acquired stocks for which there wasn’t a sufficient market at the quota support price. These stocks had to be held in storage or sold as “additional” peanuts at far lower prices, and with a loan rate price guarantee of only $132/ton (less than $0.07/lb). What had been essentially a program of no net cost to the government under which consumers paid higher prices than processors or foreign buyers began to run up larger government costs (Fletcher and Smith, 2000).

The 1996 FAIR Act included policy changes in the peanut program. There was pressure to lower the price of domestic edible peanuts and to reduce government costs resulting from the national quota exceeding domestic edible demand. The FAIR Act lowered the loan rate for

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10 Effective quota prior to 1996 was calculated by taking basic quota and adding “undermarketings” which allowed producers who had a production shortage due to poor weather to carry that year’s unused quota forward to the following year. Effective quota from 1996 to 2001 has been derived by taking basic quota plus temporary added seed quota and some lease transfers. Undermarketings were eliminated in the 1996 farm bill.
quota peanuts for the domestic edible market from $678/ton to $610/ton and eliminated the price escalators that had pushed loan rates up with rising production costs. The minimum national quota was also eliminated, which allowed USDA to set annual poundage eligible for the domestic market based on demand estimates.\textsuperscript{11} The annual effective quota poundage was reduced from 1.47 million tons for the 1995 crop year to 1.15 million tons in 1996 year and has averaged 1.24 million tons during 1996-2000, only 82 percent of the effective quota average of 1.52 million tons for the pre-FAIR years 1993-1995. Despite the reduced quota, domestic production has remained nearly constant. The average national production for 1996-2000 was 1.82 million tons, or 99 percent of the average of 1.85 million tons for the years 1993-1995. As a result, peanut producers were selling a relatively smaller proportion of their output at a lower quota support price for domestic consumption, and a relatively higher proportion of their peanuts at much lower prices in the additionals market.

One reason for declining effective quota for the domestic edible market was the new international agreements to increase agricultural trade opportunities. For peanuts, foreign producer access to the U.S. domestic market increased from less than 4 percent prior to the 1993/94 marketing year to over 10 percent by the 1999/2000 marketing year due to market-access provisions of NAFTA and the WTO (ERS, 1998). Moreover, under NAFTA the tariff rate for peanuts declines to zero for Mexico in 2008. As long as the price in the U.S. domestic market remains above the price in world markets, as it had under the peanut quota program, foreign producers had incentives to seek additional access in trade negotiations.

\textsuperscript{11} Another change in the peanut program under the FAIR Act was that quota could be transferred (leased or permanently sold) across county lines within a state. This reform was phased into effect, until a maximum 40% of the state’s quota can move across county lines. This policy change allowed some quota peanut production to move from higher-cost production areas to lower-cost areas. The largest shift of production has occurred in Texas, where nearly all of the allowed quota transfer has occurred from Central Texas to West Texas. Less transfers of quota across county lines occurred in other states.
Elimination of Peanut Quotas in the 2002 FSRIA

The 2002 FSRIA includes further fundamental change to the peanut program that significantly alters the way production, prices and government support have been managed since the 1930s. Under FSRIA peanuts receive support through policies similar to other crops. The quota support system is replaced with a direct-payments support program that includes three components: loan rates and marketing loans, fixed decoupled payments, and counter-cyclical payments. In addition, peanut quota holders are compensated for their loss of quota rights. The quota-value compensation is payments of $220/ton (11 cents per pound) to be made annually for five years or in one lump sum.

FSRIA makes a uniform marketing loan program available for all domestic peanut production. Any producer is eligible for the loan rate on current production, regardless of whether or not they qualified as an “historic peanut producer” of quota or additional peanuts. The peanut loan rate set at $355/ton. As with other crops, the peanut marketing loan offers a level of protection against low market prices and producers have the option of selling their peanuts in commercial markets and then applying for a loan deficiency payment if the prices they received are less than the loan rate.

For those who qualifying as historical peanut producers, additional income support is provided under FSRIA by fixed annual and counter-cyclical direct payments. An historical peanut producer is any person who produced or attempted to produce (e.g. if crop was destroyed by weather) peanuts on a farm in the United States during any of the crop years from 1998 to 2001. For these producers, FSRIA establishes payment yields, peanut acres and payment acres used to calculate the production base on which there is an entitlement to payments.
Payment yield is established by calculating the average yield for peanuts on a farm for the crop years 1998 through 2001. Peanut base acres is established by calculating the average of the actual peanut planted acreage over the same period. Allowance is made for prevented plantings. Payment acres are 85 percent of the peanut base acres. Payments are made on payment yield multiplied by payment acres. Eligible producers are given a one-time opportunity to assign their peanut base acreage to specific cropland on a farm, but such basic acres do not have to be where peanuts were grown in the past. Peanuts do not have to be grown on the assigned cropland in the future in order to receive the fixed and counter-cyclical payments. Thus, historical peanut producers are given planting flexibility similar to producers of other crops. Peanut base acres must be used for some agricultural purpose or for conservation.

Under FSRIA, fixed annual payments would be paid on historic production at a rate of $36/ton (1.8 cents per pound) in each crop year. The target price is set at $495 per ton by FSRIA. Counter-cyclical payments are to be made to eligible producers whenever the “effective price” for peanuts is below this target price. The effective price is set by the higher of national average market price during the 12-month marketing year plus the fixed payment rate, or the national average loan rate for peanuts plus the fixed payment rate. The counter-cyclical payment rate would then be the difference between the target price and the effective price.

A number of features are notable about the cash out adopted for peanuts in the United States in 2002. First, rising imports and potential trade liberalization that increased foreign access to the domestic edible market were used as arguments for why the change was necessary to preserve the domestic industry. One group that is disadvantaged by the change in U.S. peanut policy is foreign producers who had attained TRQ market access. Unlike domestic producers,
the foreign producers do not get compensatory payments as compensation for the lower U.S. domestic prices.

Pressure from imports may have been a factor motivating the U.S. peanut producing industry to approach Congress for the new cashed-out support program, but the new peanut program is also quite lucrative for both former quota holders and for producers of the proportion of domestic production that was sold as additionals. Traditional producers are now guaranteed the loan rate of $355 per ton (17.5 cents per pound) on all current production. With a higher guarantee of $495/ton for payment yields on 85 percent of historic peanut acres, the minimum average return would be $474/ton on a level of production equal to historical payment yield multiplied by historical peanut acres \( ((0.15) \times 355 + (0.85) \times 495) = 474 \) if peanuts continue to be grown, and the producer can also receive the fixed and decoupled payments while growing another crop if that seems more profitable. The new guaranteed return if peanuts are grown is higher than received in the past by additional producers. And for five years, a quota holder attains an additional $220. The total guaranteed revenue is thus $674 per ton for a quota owner, compared to $610 under the FAIR Act. After five years, revenue for a quota holder fall below the previous guarantee, but the quota buyout compares favorably with market prices for many sales of quota rights before the 2002 bill was passed. Apparently these market prices included a discount for the possibility that the peanut quota program would not last forever.

It is also noteworthy that U.S. sugar producers did not endorse a cash-out reform in 2002, instead opting to tighten restrictions under their traditional price support program. The sugar producers faced the same budget environment as peanut producers, potentially sugar faces even more pressure from imports, and sugar producers are widely held to be a more powerful

\[12\] Studies are now underway to assess the extent to which acreage shifts out of peanut production in various regions of the country with somewhat different cost structures and alternative cropping possibilities.
lobby than peanut producers. Why didn’t the sugar producers seek new cash-out payments under these circumstances? Apparently the industry thinks it can hold on to its current support program for some time.

Part of the reason the sugar industry did not endorse a cash out in 2002 lies the domestic structure of the industry (the large cane producers), which raises the payment distribution problem described above. A second reason lies in the prospective short-term cost of a sugar cash out. For each penny of payments per pound of sugar under a marketing loan program, the cost is around $180 million, assuming full participation at recent levels of output. The PIK program reduced sugar beet acreage by about 6 percent in 2001, which all else constant reduces total domestic sugar production by about 3 percent. If instead market prices had been allowed to fall below the loan rate with compensating cash payments, the program cost could have been from $200 million to as high as $1 billion per year, depending on the inelasticity of demand. Marketing allotments and PIK programs were anticipated being in use for at least several years in 2002, implying a cash out would prove costly over this time period. Longer term, the cost would depend on uncertain supply and demand conditions, as well as the demand elasticity. A 25 percent reduction in current loan rates would bring them down from $0.18 to $0.135 for raw cane sugar, and from $0.229 to $0.172 for refined beet sugar. If under existing import restrictions the domestic price was anticipated not to fall this much, alternative direct fixed compensation payment of 50 percent of the change in loan rate based on average recent production (and decoupled from subsequent production) would have an estimated cost of around $500 million per year if there were full participation. Thus the cost of this form of cash out for the sugar industry would be around that actually obtained by the smaller peanut industry. This seems feasible in fiscal cost terms, especially given the peanut cash out in 2002, but has
been resisted for sugar. In any case, trade liberalization is unlikely to occur without being accompanied by some sort of cash out for sugar producers in the United States.

Recent Policies Change in Other Countries

To be included in subsequent version of the paper.

Conclusions

This paper has addressed the current policy regimes toward sugar among Western Hemisphere countries, the sugar production and marketing situations under these policies, and the prospects for sugar trade liberalization under an FTAA. While there is no certainty that sugar trade liberalization will be included in an FTAA, the argument is presented that such reform is a desirable policy outcome because it raises efficient and is welfare-enhancing in a manner consistent with the overall objective of broad FTAA trade liberalization. Sugar is an essentially homogeneous commodity for which several FTAA developing countries are low cost producers. The region has a net surplus of low-cost sugar output. Thus, sugar is a prime candidate for policy reform to increase trade opportunities of developing countries.

To accommodate trade liberalization, it is likely that some form of compensation payments will be required. Within the United States, where much of the adjustment to lower prices would occur, the fundamental reform of the peanut program in 2002 provides a possible template for sugar reform as well, although the costs could be higher. The highly concentrated structure of sugar production in the southern United States also presents a political obstacle to devising a direct payments compensation scheme. Thus, achieving sugar market trade liberalization will take a significant commitment on the part of negotiating governments. Compensation mechanisms for high-cost producers in other countries may also need to be devised in order for sugar market liberalization to proceed. These compensation mechanisms
should not lock in continued high-cost production, but compensation to offset distributional
effects and allow net gains are consistent with trade theory.
Table 1. Average sugar production and consumption, 1995/95 – 1999/2000

<table>
<thead>
<tr>
<th>Region/Country</th>
<th>Production</th>
<th>Domestic</th>
<th>Net Surplus Production of Sugar</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1,000 metric tons, raw value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>128</td>
<td>1,230</td>
<td>(1,102)</td>
</tr>
<tr>
<td>Mexico</td>
<td>4,989</td>
<td>4,300</td>
<td>689</td>
</tr>
<tr>
<td>United States</td>
<td>7,260</td>
<td>8,913</td>
<td>(1,653)</td>
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<tr>
<td>Total</td>
<td>12,377</td>
<td>14,443</td>
<td>(2,066)</td>
</tr>
<tr>
<td>Caribbean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barbados</td>
<td>58</td>
<td>17</td>
<td>42</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>514</td>
<td>305</td>
<td>210</td>
</tr>
<tr>
<td>Haiti</td>
<td>10</td>
<td>84</td>
<td>(74)</td>
</tr>
<tr>
<td>Jamaica</td>
<td>215</td>
<td>125</td>
<td>89</td>
</tr>
<tr>
<td>St. Kitts and Nevis</td>
<td>21</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>103</td>
<td>84</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>922</td>
<td>619</td>
<td>303</td>
</tr>
<tr>
<td>Central America</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Belize</td>
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<td>14</td>
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<tr>
<td>Costa Rica</td>
<td>361</td>
<td>205</td>
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<tr>
<td>El Salvador</td>
<td>418</td>
<td>219</td>
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<td>Guatemala</td>
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<td>438</td>
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<tr>
<td>Honduras</td>
<td>250</td>
<td>224</td>
<td>26</td>
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<tr>
<td>Nicaragua</td>
<td>349</td>
<td>181</td>
<td>168</td>
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<tr>
<td>Panama</td>
<td>168</td>
<td>99</td>
<td>69</td>
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<tr>
<td>Total</td>
<td>3,219</td>
<td>1,380</td>
<td>1,839</td>
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<tr>
<td>South America</td>
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<tr>
<td>Argentina</td>
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<td>1,421</td>
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<td>Bolivia</td>
<td>295</td>
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<tr>
<td>Brazil</td>
<td>16,490</td>
<td>8,720</td>
<td>7,770</td>
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<tr>
<td>Chile</td>
<td>495</td>
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<tr>
<td>Colombia</td>
<td>2,155</td>
<td>1,333</td>
<td>821</td>
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<tr>
<td>Ecuador</td>
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<td>390</td>
<td>(34)</td>
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<td>Guyana</td>
<td>271</td>
<td>32</td>
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<td>Paraguay</td>
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<td>115</td>
<td>11</td>
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<tr>
<td>Peru</td>
<td>617</td>
<td>896</td>
<td>(279)</td>
</tr>
<tr>
<td>Surinam</td>
<td>1</td>
<td>14</td>
<td>(13)</td>
</tr>
<tr>
<td>Uruguay</td>
<td>20</td>
<td>110</td>
<td>(90)</td>
</tr>
<tr>
<td>Venezuela</td>
<td>580</td>
<td>752</td>
<td>(172)</td>
</tr>
<tr>
<td>Total</td>
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<td>14,702</td>
<td>8,347</td>
</tr>
<tr>
<td>Grand Total</td>
<td>39,567</td>
<td>31,144</td>
<td>8,423</td>
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Source: USDA
References


