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**Country:** Nicaragua

**Post:** Managua

**Report Category:** Sugar

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**Report Highlights:**

Earlier investments in mechanization, irrigation, and co-generation of electricity for the national energy grid have helped insulate the sugar industry from domestic political instability, but access to and pricing of fuel and fertilizer could negatively affect sugarcane production in marketing year 2022/23. The Nicaraguan sugar industry anticipates over 7.2 million metric tons of sugarcane and 780,000 metric tons of sugar production in marketing year 2021/22, with the highest national sugarcane yield in the last ten years.

## **Sugarcane Production**

FAS/Managua projects marketing year (MY) 2022/23 sugarcane production at 7.25 million metric tons (MT) as lower agronomic yields from reduced fertilizer application and less in-field management partially offset a marginal increase in area planted.

Industry sources anticipate record sugarcane production of 7.2 million MT in MY 2021/22, as area planted remained stable and a broader Nicaraguan economic recovery in 2021 supported increased investment in sugarcane production. MY 2021/22 production conditions were relatively free from pest and disease pressures, and producers benefitted from a relatively less active hurricane / tropical storm season.

Nicaragua is the third-largest sugarcane producer in Central America, after Guatemala and El Salvador. Sugarcane is produced along the Pacific Coast of Nicaragua and harvested from November through May. Four sugar mills produce approximately 60 percent of total sugarcane, with roughly 600 independent farmers producing the remainder.

High returns from sugar and co-products have enabled the mechanization of an estimated 95 percent of sugarcane harvested in some of the most productive areas; elsewhere, up to 40 percent of harvesting is still done by hand. Reportedly, higher mechanization rates have been precluded by smaller sized plots, where available equipment is simply too large to effectively maneuver. Industry sources noted ongoing collaboration with U.S. equipment manufacturers to develop smaller-scale harvesting equipment that could meet the needs of smaller farms in Nicaragua and other Central American countries.

### Area Planted

The Nicaraguan Sugar Producers' Association (CNPA) expects MY 2022/23 area planted to remain roughly flat, rising by 500 hectares (ha) to 73,500 as sugar production and co-generation of electricity from sugar by-products continues to generate positive returns on investment.

FAS/Managua estimates sugarcane area planted in MY 2021/22 at 73,000 ha, up one percent from MY 2020/21. Since sugarcane is a perennial crop that is generally harvested for at least four years after new plantings, area planted does not vary greatly from one season to the next. While some area rotates into / out of peanut production every year and some area planted has transitioned to banana production, sugarcane area planted remains relatively consistent from year to year. The average farm size for an independent sugarcane farmer is about 100 ha.

### Yields

FAS/Managua anticipates MY 2022/23 agronomic yields down less than one metric ton per hectare from MY 2021/22 on expected lower fertilizer application and less in-field cultural management during MY 2022/23 crop production cycle. FAS/Managua expects fertilizer prices to remain higher and availability constrained much of MY 2022/23 production. In addition, FAS/Managua expects anticipated higher fuel prices could reduce equipment use for cultural practices during the MY 2022/23 crop production cycle.

FAS/Managua expects sugarcane agronomic yields to reach 99 MT/ha in MY 2021/22. Though one sugar mill reported an expected 12 percent drop in MY 2021/22 sugarcane agronomic yields, due to insufficient September and October precipitation, agricultural yields in the rest of the country are anticipated to be strong enough to more offset those lower yields. Significant investments in drip irrigation and micro sprinkler systems have supported higher yields, while making efficient use of limited water resources. Roughly half of sugarcane farms have integrated irrigation systems, with the rest of farms relying exclusively on rainfall.

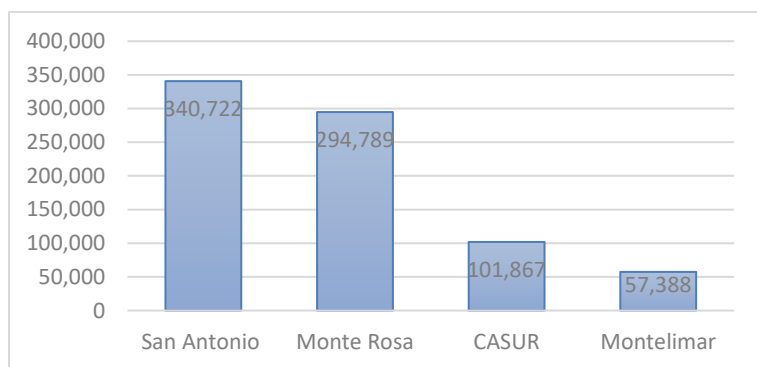
Favorable weather – sufficient precipitation in areas lacking irrigation and a relative absence of destructive storms – as well as expanded plantings of drought tolerant sugarcane varieties also contributed to higher MY 2021/22 yields. Introduction of advanced sugarcane varieties, like the drought-tolerant Guatemalan-developed CG02-163 variety, should generate sustained agronomic yield increases in the years ahead by increasing the number of plants per linear meter while improving profitability of re-planted or new production areas.

### **Sugar Production**

FAS/Managua projects MY 2022/23 sugar production flat at 780,000 MT, as slightly lower agronomic yields and flat sugar processing yields balance out marginal increases in area planted.

CNPA projects MY 2021/22 sugar production to reach 780,000 MT, up 3 percent from MY 2020/21. Based on projected sugar and sugarcane production, FAS/Managua anticipates MY 2021/22 sugar processing yields at approximately 238 pounds of raw sugar per metric ton.

**Figure 1. MY 2021/22 Sugar Production by Sugar Mill (MT)**

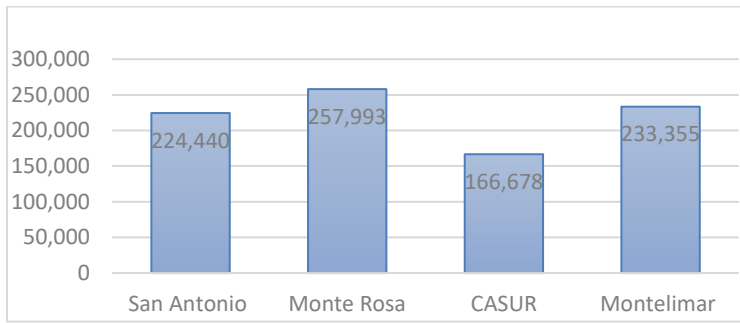


Source: Nicaraguan Sugar Producers' Association (CNPA)

### **Co-Production**

Besides sugar production, the four sugar mills operate biomass power plants capable of generating over 120 megawatts of electricity per hour for approximately 9 months each year, using bagasse and other crop residue for feedstock. Power generation has become an indispensable revenue stream, vital to the industry's economic stability and profitability. According to industry sources, additional energy co-production investments are currently on hold due to the continuing social political crisis in Nicaragua.

**Figure 2. MY 2021/22 Energy Production by Sugar Mill (megawatts/hour)**



Source: Nicaraguan Sugar Producers' Association (CNPA)

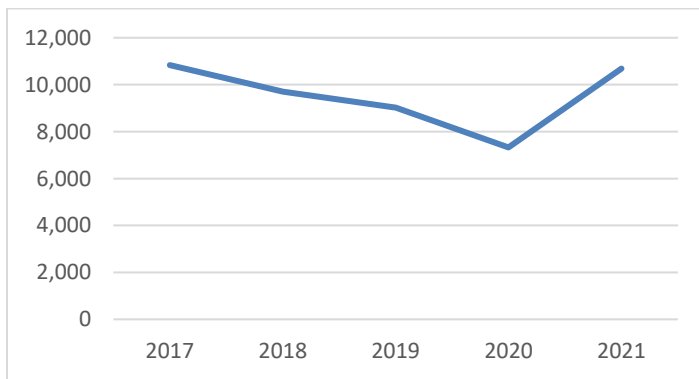
Nicaraguan sugar mills did not produce ethanol in MY 2021/22. Only one of the four sugar mills has ethanol production capacity, but that equipment was not operational in MY 2021/22 due to the lack of a national policy to promote fuel ethanol.

### Consumption

The CNPA anticipates continued moderate sugar consumption growth of two percent in MY 2022/23 driven largely by demand from domestic carbonated beverage manufacturers. Total domestic consumption in Nicaragua reached 280,000 MT in MY 2021/22. In Calendar Year (CY) 2021, the CNPA estimated national sugar consumption at 47 kilograms per person. Generally, about 40 percent of total sugar production is consumed domestically in the Nicaraguan market, with the remaining 60 percent exported.

Although domestic political instability has increased outbound migration, Nicaraguan sugar consumption has increased in recent years due in part to increased demand from the domestic beverage industry. In 2019, the Government of Nicaragua revised taxes on several imported goods, including carbonated beverages, driving the Consumer's Selective Tax (ISC) up from 9 to 15 percent. As a result, several beverage companies increased local production of carbonated drinks while reducing imports.

**Figure 3. Carbonated and Non-Carbonated Soft Drink Imports 2017-2021 (MT)**



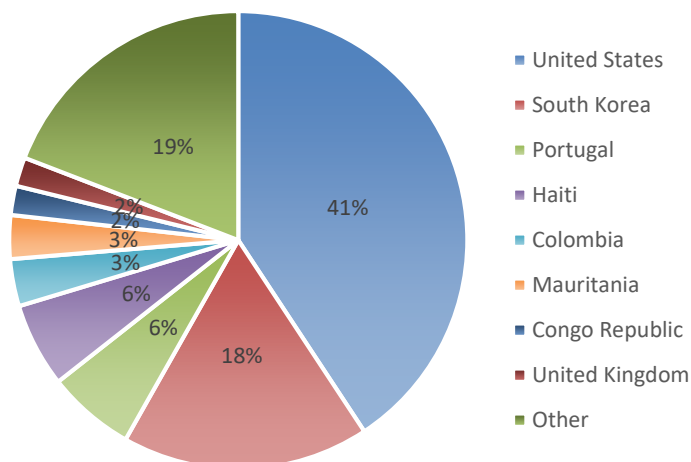
Source: Nicaraguan Central Bank.

According to the Nicaraguan Central Bank, Gross Domestic Product (GDP) grew ten percent in CY 2021, increasing domestic demand for carbonated beverages as well as non-carbonated soft drinks, imports of which rose more than 20 percent between 2020 and 2021.

## Trade

FAS/Managua expects total export volumes to remain mostly unchanged in MY 2022/23, as Nicaraguan export volumes are redirected following the anticipated loss of the Taiwan market. In late 2021, the Government of Nicaragua severed diplomatic relations with Taiwan and established diplomatic relations with China. As a result, Nicaragua will not have access to a 70,000 MT quota for sugar exports to Taiwan in CY 2022.

**Figure 4. CY 2021 Leading Export Destinations (by Volume)**



Source: Nicaraguan Central Bank

**Table 1: Centrifugal Sugar Export Volume in MT (Oct/Sep Marketing Year)**

Destination	2018/2019	2019/2020	2020/2021
United States	93,148	110,826	83,203
South Korea	0	178,164	93,142
Taiwan	60,775	58,786	63,750
EU 27	22,993	25,759	26,805
Ghana	50,515	19,853	19,844
Canada	87,800	19,000	0
China	42,000	0	0
Mexico	6,650	45,400	1,300
Other Markets	47,718	20,145	28,294
<b>Total</b>	<b>411,599</b>	<b>477,933</b>	<b>316,338</b>

Source: Trade Data Monitor, LLC.

### **Sugar Quotas**

Nicaragua has access to U.S. tariff rate quotas (TRQs) of 22,114 MT under the World Trade Organization (WTO) and 29,040 MT (in 2022) under the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR). The actual volume shipped under the WTO quota can increase above 22,114 MT if the United States requires additional volumes of sugar or if the United States re-allocates volumes allocated to historical sugar exporters unable to fill their allocated TRQ volume in a given year. In FY 2021, the United States allocated three additional quota volumes (1,935 MT, 2,277 MT, and 796 MT) to Nicaragua under the WTO due to shortfalls in the United States. In FY 2021, Nicaragua filled 100 percent of its WTO and CAFTA-DR volumes.

Nicaragua also has export quotas with the European Union (26,879 MT), Mexico (available only when Mexico has domestic shortfalls), and the United Kingdom (8,665 MT). Nicaragua has preferential access without quota allocations to the South Korean market.

### **Stocks**

FAS/Managua expects stocks to remain flat in MY 2022/23. The Nicaraguan sugar industry maintains approximately 40,000 MT of sugar stocks to guarantee domestic and exportable supplies ahead of the out-year harvest. These stocks mitigate risks associated with possible supply shortfalls from the Atlantic hurricane season (September through December).

### **Policy**

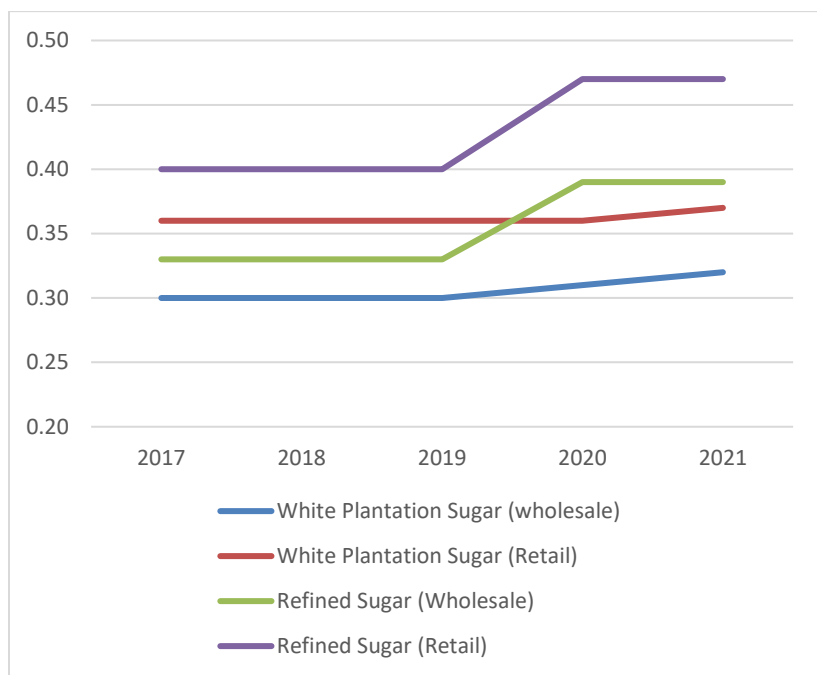
The Government of Nicaragua does not set sugar prices, nor does it provide subsidies nor special credit programs for sugar production or export. However, the sugar industry does benefit from relatively high domestic prices compared to world sugar prices as a result of high tariffs on imported sugar. Sales at higher than world prices in Nicaragua, stable exports to the United States, and revenue from biomass energy production have helped insulate Nicaragua's sugar industry from fluctuations in international sugar pricing.

Nicaragua does not have a law to promote production and/or use of fuel ethanol.

### **Marketing**

Sugar prices in Nicaragua have been stable in the last five years with a slight increase in white plantation sugar and a more marked increase in refined sugar starting from 2019, when the Nicaraguan Government began applying the 15 percent value added tax to sugar sales.

**Figure 5: CY 2017-21 Average Sugar Prices (in U.S. Cents per Pound)**



Source: Nicaraguan Sugar Committee

**Table 2: Sugarcane for Centrifugal Sugar: Supply and Utilization**

Sugarcane for Centrifugal Market Year Begins	2020/2021		2021/2022		2022/2023	
	Oct 2021		Oct 2022		Oct 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Nicaragua</b>						
<b>Area Planted</b> (1,000 HA)	72	72	73	73	0	74
<b>Area Harvested</b> (1,000 HA)	72	72	73	73	0	74
<b>Production</b> (1,000 MT)	6906	6829	7100	7239	0	7250
<b>Total Supply</b> (1,000 MT)	6906	6829	7100	7239	0	7250
<b>Utilization for Sugar</b> (1,000 MT)	6906	6829	7100	7239	0	7250
<b>Utilization for Alcohol</b> (1,000 MT)	0	0	0	0	0	0
<b>Total Utilization</b> (1,000 MT)	6906	6829	7100	7239	0	7250
(1,000 HA), (1,000 MT)						

**Table 3. Centrifugal Sugar: Production, Supply and Distribution**

Sugar, Centrifugal Market Year Begins  Nicaragua	2020/2021		2021/2022		2022/2023	
	Oct 2020		Oct 2021		Oct 2022	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
<b>Beginning Stocks</b> (1,000 MT)	65	65	40	40	0	40
<b>Beet Sugar Production</b> (1,000 MT)	0	0	0	0	0	0
<b>Cane Sugar Production</b> (1,000 MT)	756	756	776	780	0	780
<b>Total Sugar Production</b> (1,000 MT)	756	756	776	780	0	780
<b>Raw Imports</b> (1,000 MT)	0	0	0	0	0	0
<b>Refined Imp.(Raw Val)</b> (1,000 MT)	0	0	0	0	0	0
<b>Total Imports</b> (1,000 MT)	0	0	0	0	0	0
<b>Total Supply</b> (1,000 MT)	821	821	816	820	0	820
<b>Raw Exports</b> (1,000 MT)	356	355	357	300	0	325
<b>Refined Exp.(Raw Val)</b> (1,000 MT)	153	153	153	200	0	170
<b>Total Exports</b> (1,000 MT)	509	508	510	500	0	495
<b>Human Dom. Consumption</b> (1,000 MT)	272	273	266	280	0	285
<b>Other Disappearance</b> (1,000 MT)	0	0	0	0	0	0
<b>Total Use</b> (1,000 MT)	272	273	266	280	0	285
<b>Ending Stocks</b> (1,000 MT)	40	40	40	40	0	40
<b>Total Distribution</b> (1,000 MT)	821	821	816	820	0	820
(1,000 MT)						

**Attachments:**

No Attachments