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Report Name: Sugar Annual

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Prepared By: Karla Tay

Approved By: Andrew Hochhalter

Report Highlights:

In marketing year (MY)2023/2024, Guatemala is forecast to produce 2.6 million metric tons of sugar from sugarcane from a harvested area of 251,000 hectares. Planted areas slowly recover as prices increase in the international markets. Domestic prices increased 15 percent compared to pre-pandemic prices and started 6 percent higher in the first months of 2023 compared to the same period in 2022. Stocks in MY2023/2024 are forecast at 217,000 MT. Domestic consumption for MY2022/2023 has been revised up to 960,000 MT and is forecast at 970,000 MT in MY2023/2024 as the food and beverages industry grows at 23 percent annual rate.

Executive Summary:

Sugarcane production in Guatemala is now under the responsibility of ten sugar mills. Despite a reduction in the number of sugar mills in the past years, overall volumes have increased. In the past five years land dedicated to sugarcane shrank 2 percent annually, resulting from a combination of low international prices pushed by India subsidies and the covid pandemic. In post pandemic times, including the Russian-Ukraine war, sugar prices have increased in the international and domestic markets, providing new incentives to maintain planted area, and rent additional land.

Roughly 65 percent of the planted area has locally developed varieties better adapted to Guatemalan growing conditions. Investments in mechanization, irrigation, and climate smart technology have increased efficiency at the field level, combined with improved efficiencies at the industrial processes for extraction, water use, and energy production. The sector is committed to environmental sustainability, with outputs in carbon footprint and water use almost half of its global competitors.

Production:

Sugarcane

Planted area in sugarcane for marketing year (MY) 2023/2024 is forecast at 276,000 hectares (Ha), slightly increased from the MY 2022/2023 estimate (275,000). Sugarcane area was reduced in the past years given depressed international prices resulting from India's subsidies, followed by the pandemic, but is picking up again with additional rented land for sugarcane, which can pay twice as much as other crops in the South Coast of Guatemala. The Guatemalan Center for Sugarcane Research – CENGICAÑA- maintains a permanent breeding program to improve genetics for the sustainability of the sugar sector in Guatemala, especially those varieties adapted to climate change, which already account for 65 percent of the planted sugarcane.

According to CENGICAÑA Sugarcane yields in MY2023/2024 are forecast to slightly increase from the previous year's estimate, especially if the rainy season doesn't extend after October, affecting the health condition of the cane. In MY2022/2023, the late arrival of the dry season negatively impacted the sugar content as the rain ended until late November-early December, reducing sugar production by 2 percent.

Guatemalan sugarcane production continues in the pathway of environmental sustainability. In terms of water efficiency, the sugarcane crop system only requires 100 cubic meters of water per ton, while global averages are 175 cubic meters per ton, therefore only 16 percent of the production area requires irrigation in contrast to world average of 27 percent. According to the sugar sector, sugar production represents less than 2 percent of the country's national greenhouse gas emissions, with a carbon footprint of 0.33 kg of carbon dioxide equivalent per kg of sugar produced, which allows them to actively participate in the carbon markets.

Given the lack of labor in agriculture in Guatemala, highly putting pressure for mechanization in the past five years, in MY2022/2023, at least 51 percent of the sugarcane planting and harvesting was mechanized.

Sugar Production

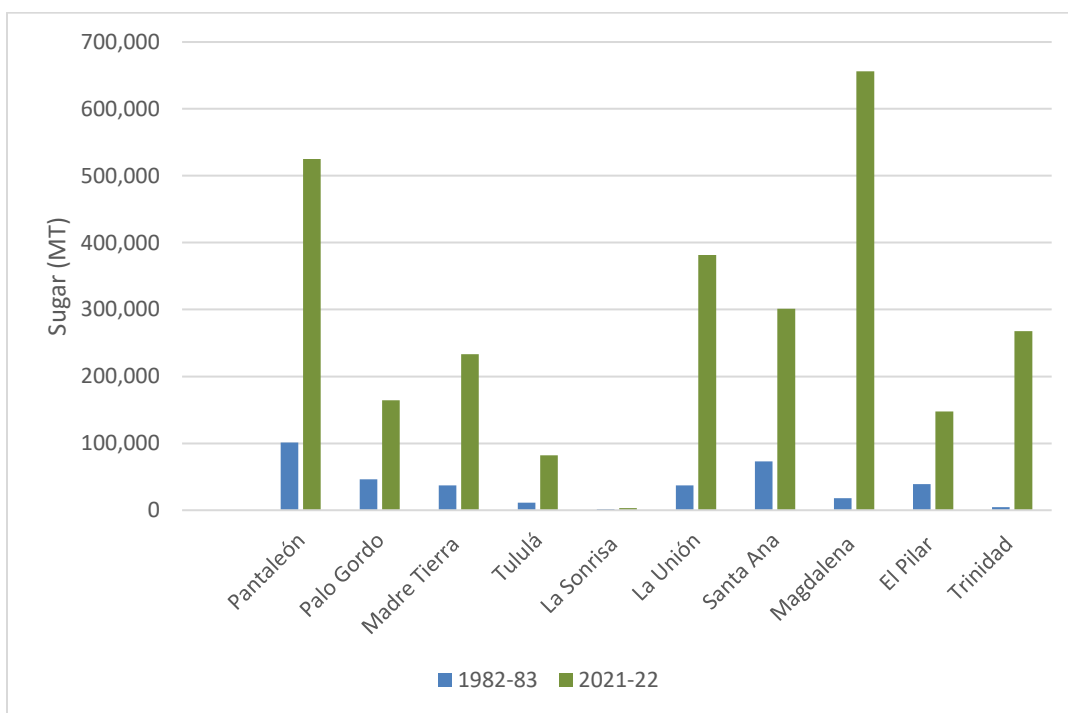
Sugar production for MY2023/2024 is forecast at 2.58 million MT, slightly higher than the estimate for MY2022/2023 (2.56 MT), as planted area increases. Production in MY2022/2023 has been revised two percent down as the sugar cane yield and sugar extraction declined due to a late entry of the dry season and extension of the rainy season beyond the harvest initiation.

Ten mills are active in Guatemala (see Figure 1). In MY1982/1983, Guatemala produced 369,143 MT of sugar, which increased 6-fold its production to 2.58 million MT by MY2021/2022. Although sugar outputs like La Sonrisa sugar mill are not perceptible in Figure 1, other mills like Magdalena have lifted

the MY1982/1983 production from 18,187 MT to 656,177 MT in MY2021/2022. Overall, in 20 years, the sugar industry has made significant improvements, leading to Guatemala being the 4th largest exporter worldwide, after Brazil, India, and Thailand, valued in more than \$713 million in the past market year.

Figure 1

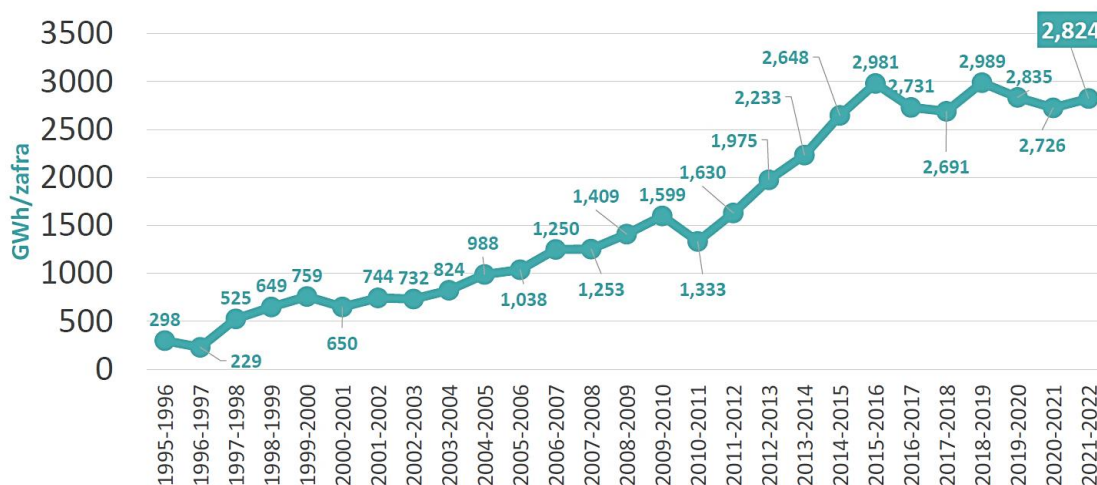
Comparative analysis of sugar production in Guatemala for still active sugar mills (MY1982/1983 vs. MY2021/2022)



Source: USDA with data from CENGICAÑA, 2023

The 10 sugar mills produced 27 percent of the country’s total energy, equivalent to 2,824 giga watt hours (GWh) in MY2021/2022, significantly increasing energy generation across time, as Figure 2 shows. Harvest 2021/2022 was historically the fourth best one in cogeneration of energy. This cogeneration is a result of the energy output resulting from the milling, of which 91 percent results from the bagasse, followed by 8 percent resulting from carbon combustion and 1 percent from other sources. The bagasse present in the sugarcane can be increased through breeding, as not necessarily higher juice content varieties have higher sugar content. Energy yields depend on the bagasse volume and the cogeneration technologies, so far led by extraction (51 percent), followed by escape (42 percent), and condensation (7 percent). Trinidad mill leads with 125.5 kilo watt hours (kWh)/MT of sugarcane.

Figure 2
Historical energy cogeneration (GWh/MY) in Guatemala by sugar mills



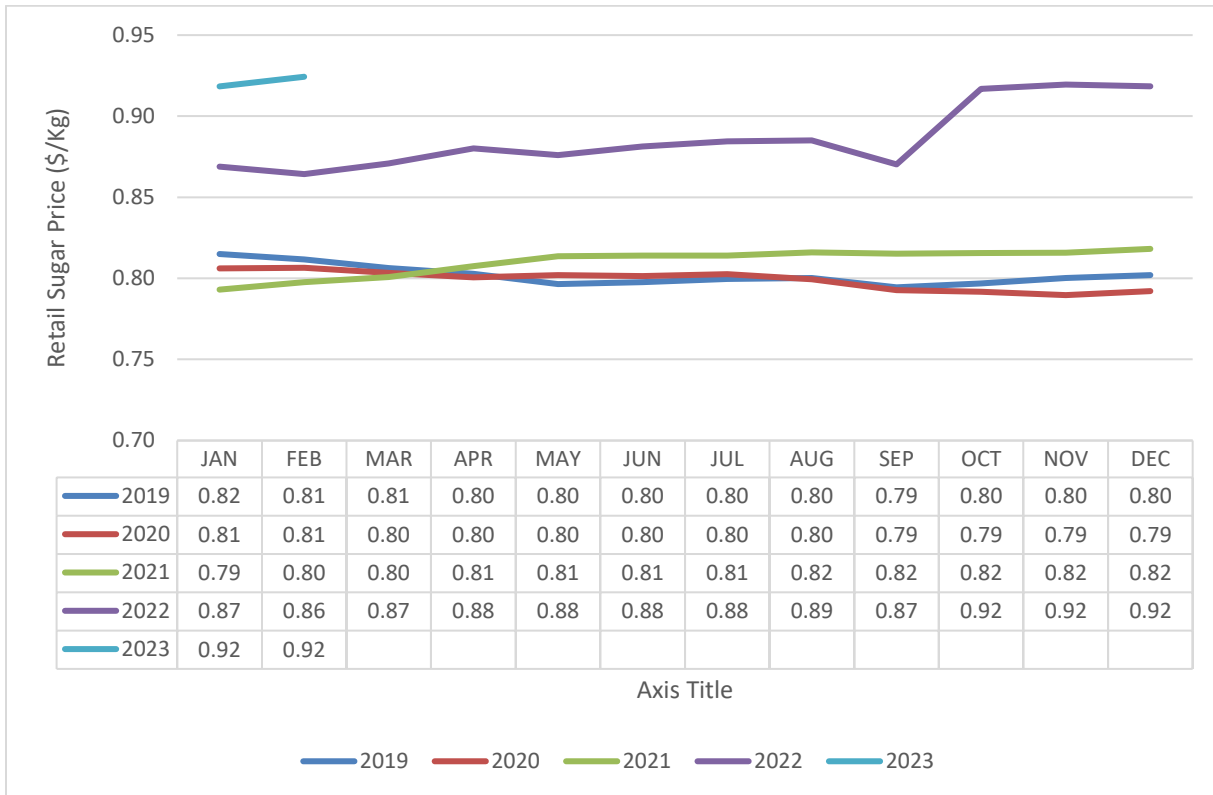
Source: CENGICAÑA, 2023

Consumption:

Consumption in MY2023/2024 is forecast at 970,000 metric tons raw value (MTRV) of refined sugar, slightly higher (one percent) than the revised consumption of 960,000 MTRV for MY2022/2023, one percent above the previous estimate (950,000 MT). Guatemala sugar consumption for MY 2021/2022 has also been revised up to 955,000 MT. Domestic consumption of sugar has recovered after the pandemic, and its utilization in the food and beverage manufacturing processes, bakery and sugar confectionery industries continues an upswing. As a result, domestic consumption now represents 38 percent of the Guatemalan sugar sales. The sugar sector's mandate demands filling 100 percent of the local demand, prior to exporting. The per capita consumption estimates for MY2023//2024 is 54 kg.

Sugar prices in Guatemala were relatively stable in the pre-pandemic and pandemic years but are experiencing a 15 percent increase in post-pandemic years, starting at \$0.82-\$0.80/Kg in 2019 up to \$0.87-\$0.92/Kg in 2022. Prices in Jan-Feb 2023 were 6 percent above the same period compared to the previous year.

Figure 3
Average Monthly Sugar Prices at Retail in Guatemala (2019-2022)



Source: DIPLAN, MAGA, 2023

Increase in domestic prices respond mostly to inflation, especially associated with increase in fertilizer costs. Fertilizers and agrochemicals experienced interannual increase of up to 57 percent in 2022, following annual increases of 25-53 percent by the end of 2021, being urea the most expensive fertilizer, basically duplicating its price in the years following the pandemic, as reflected in Table 1.

Table 1
Average prices and variations of main fertilizers used in sugar production in Guatemala.
(2020-2022)

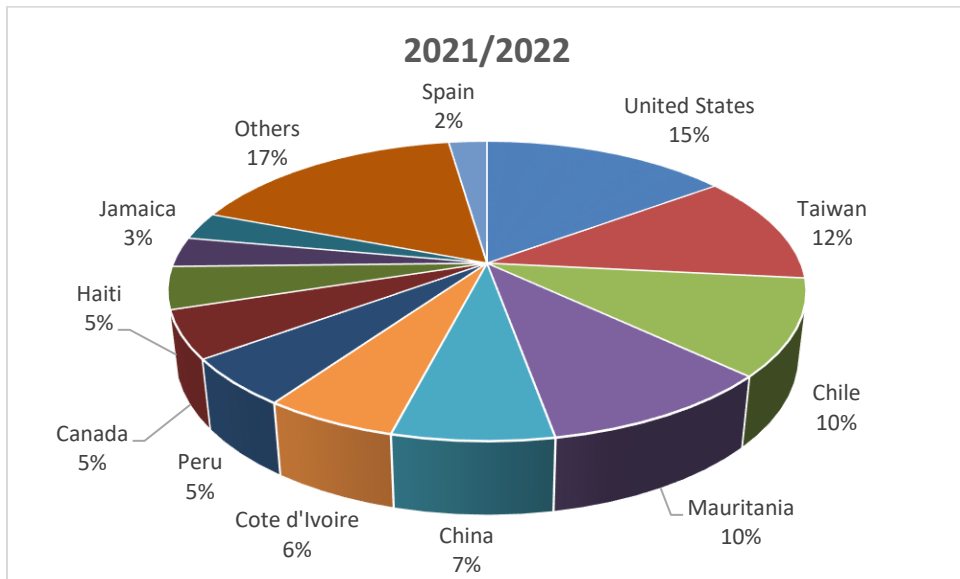
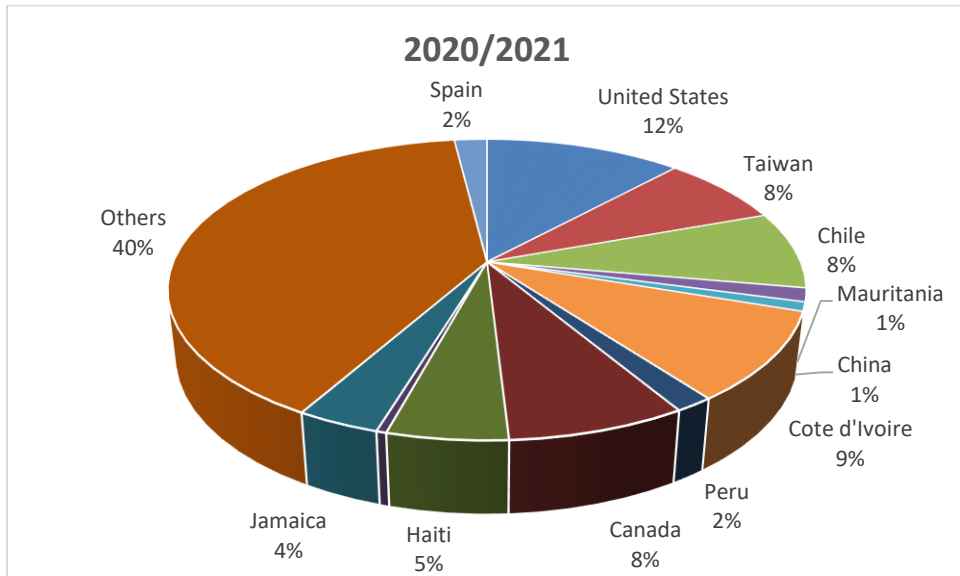
Fertilizer	Average Price by Nov. 2022 (\$/MT)	Variation	Period			
			Monthly Oct-Nov 2022	Interannual (Nov 2021-Nov 2022)	Pandemic (Mar 2020-Nov 2022)	Annual 2020-2021 (Jan-Dec)
15-15-15	1,131.78	Relative	3.74%	57.27%	91.13%	24.94%
		Absolute (\$/TM)	40.75	412.13	539.63	143.65
20-20-0	1,078.07	Relative	0.32%	49.75%	91.88%	29.62%
		Absolute (\$/TM)	3.41	358.16	516.23	164.49
Urea	1,197.11	Relative	-0.04%	54.87%	141.62%	53.40%
		Absolute (\$/TM)	-0.45	423.38	701.66	269.06

Source: DIPLAN/Ministry of Agriculture (MAGA), Nov. 2022

Trade:

Exports in MY 2023/2024 are forecast at 1.66 million MT, 4 percent above the revised estimate for MY2022/2023 (1.597 million MT). Exports in MY2022/2023 are revised 6 percent down from the previous estimate. In MY2021/2022, main sugar export destinations were the United States (15%), Taiwan (12%), Chile (10%), Mauritania (10%), and China (7%), as shown in Figure 4.

Figure 4
 Market share of Guatemalan exports in MY2021/2022 and MY2020/2021



Source: USDA, 2023 (based on Trade Data Monitoring)

The Trade Matrix for MY2019/2020 vs. MY2020/2021 is shown in Table 2. Total exports increased by 14 percent, showing recovery of the international trade after the pandemic.

Table 2
Trade Matrix for Guatemalan Exports in MY2021 and MY2022

MT (RV)	MY2021	MY2022
World	1,449,967	1,651,469
United States	175,986	252,142
Taiwan	111,939	197,660
Chile	122,752	175,692
Mauritania	21,468	171,532
China	14,423	116,548
Cote d'Ivoire	141,209	96,410
Peru	24,569	87,488
Canada	113,650	87,050
Haiti	76,318	77,340
Colombia	6,397	54,354
Jamaica	52,788	50,235
Others	588,468	285,018

Source: Trade Data Monitoring, 2022

Guatemala's main export channel continues to be Port Quetzal. The sugar industry's exporter terminal – EXPOGRANEL- maintains its installed capacity to receive 800 MT of sugar per hour bulk vessel filling at a speed of 2,164 MT of sugar per hour. The terminal still holds capacity to store 58,000 MT of sugar in sacks and operates 10 trucks per hour when filling containers with sacked white or refined sugar. Refined sugar has increased its participation in the export market from 39% in 2008 to 57% in MY2022, one percent higher than MY2021.

Stocks:

Stocks in MY 2023/2024 are forecast at 217,000 MT, down from previous levels, responding to both increased domestic consumption and post pandemic recovery.

Trade (Policy):

Guatemala has in place various free trade agreements (FTA) where sugar has gained market access, being the quota with Taiwan the most important in terms of volume, followed by the United States, the European Union, UK, and Ecuador. Guatemala will fill its MY2022/2023 quota with the United States, equivalent to 118,436 MT, split in WTO (50,546 MT allocated, 1,093 increased, and 14,157 reallocated) plus CAFTA-DR (52,640 mt).

Policy:

The Sugar Board of Guatemala, which includes representatives from the Ministry of Economy, sugarcane producers, and sugar mills, establishes production goals, sets sugarcane prices, and allocates the U.S. sugar quota to the different sugar mills. The allocation of the quota to each mill is based on past production, previous quotas, and milling capacity. Sugar in Guatemala is protected by Presidential Decree 15-1998 and its regulation through [Presidential Decree 021-2000](#), making fortification of sugar mandatory for its consumption in Guatemala. The fortification is approved and validated by the Institute of Nutrition of Central America and Panama (INCAP), which monitors and evaluates the impact of Vitamin A fortification; the impact of this policy has resulted in eradication of children blindness in Guatemala.

Production, Supply, and Demand

Sugar Cane for Centrifugal	2021/2022		2022/2023		2023/2024	
	Nov 2021		Nov 2022		Nov 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Market Year Begins						
Guatemala						
Area Planted (1000 HA)	275	275	275	275	0	276
Area Harvested (1000 HA)	258	249	258	250	0	251
Production (1000 MT)	2580	2575	2600	2558	0	2575
Total Supply (1000 MT)	2580	2575	2600	2558	0	2575
Utilization for Sugar (1000 MT)	2580	2575	2600	2558	0	2575
Utilization for Alcohol (1000 MT)	0	0	0	0	0	0
Total Utilization (1000 MT)	2580	2575	2600	2558	0	2575
(1000 HA) ,(1000 MT)						

Sugar, Centrifugal	2021/2022		2022/2023		2023/2024	
	Oct 2021		Oct 2022		Oct 2023	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Market Year Begins						
Guatemala						
Beginning Stocks (1000 MT)	364	364	259	333	0	274
Beet Sugar Production (1000 MT)	0	0	0	0	0	0
Cane Sugar Production (1000 MT)	2580	2575	2600	2558	0	2575
Total Sugar Production (1000 MT)	2580	2575	2600	2558	0	2575
Raw Imports (1000 MT)	0	0	0	0	0	0
Refined Imp. (Raw Val) (1000 MT)	0	0	0	0	0	0
Total Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	2944	2939	2859	2891	0	2849
Raw Exports (1000 MT)	830	702	835	707	0	710
Refined Exp. (Raw Val) (1000 MT)	910	949	915	950	0	952
Total Exports (1000 MT)	1740	1651	1750	1657	0	1662
Human Dom. Consumption (1000 MT)	945	955	950	960	0	970
Other Disappearance (1000 MT)	0	0	0	0	0	0
Total Use (1000 MT)	945	955	950	960	0	970
Ending Stocks (1000 MT)	259	333	159	274	0	217
Total Distribution (1000 MT)	2944	2939	2859	2891	0	2849
(1000 MT)						

Attachments:

No Attachments