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Report Highlights:

Total sugar production in marketing year (MY) 2022/23 (October - September) is forecast at 10 MMT, up 400,000 MT from the revised MY 2021/22 estimate. MY 2021/22 estimates for production, trade and and consumption are all revised downward. The production side is affected primarily by abnormal weather, COVID impacts, and crop competition. MY 2021/22 cane sugar production is revised to 8.7 MMT, down 500,000 MT from the official estimate. MY 2021/22 beet sugar production is revised to 900,000 MT, down 200,000 MT from the official estimate. High world prices and COVID impacts will affect demand in MY 2021/22.

Cane Sugar Production

Marketing year (MY) MY 2022/23 (Oct-Sep) cane sugar production is forecast at 9 million metric tons (MMT), up 300,000 metric tons (MT) from the MY 2021/22 estimate. This projected increase assumes that, after higher-than-normal rainfall at the beginning of MY 2021/22, precipitation in Guangxi and Yunnan will return to normal in MY 2022/23 and cane sugar content will rise. This also assumes fewer transportation disruptions caused by strict COVID requirements.

MY 2022/23 area planted and harvested is forecast at 1.21 million hectares, flat from MY 2021/22. Planted area is expected to remain flat over the long term. Despite rising input costs - especially for labor where mechanization is limited by hilly terrain - and increased competition from competitive crops, sugar is considered a staple crop. As food supplies tighten, and prices rise, these staple crops, seen as a cornerstone of Chinese food security, are getting increased attention to maintain stable production. To achieve this goal local governments in major cane production areas offer incentives to keep cane acreage from declining.

In early 2022, Guangxi began a campaign encouraging farmers to reduce planting Eucalyptus trees in favor of other crops, including sugar cane, to ensure central government goals are met regarding sugar. Local municipal governments in Guangxi are reportedly taking administrative measures to provide financial incentives such as RMB1200 per mu (\$2813 per hectare) to switch Eucalyptus to cane. Sugar mills also help cover expenses in cutting down Eucalyptus trees and planting cane. Though there will be some competition for land from citrus, government incentives to ensure cane acreage are largely expected to work.

Meanwhile, since 2020, to keep cane acreage from declining in Yunnan, the provincial government has been providing farmers subsidies including RMB350 per mu (\$820 per hectare) for planting good cane breeds and up to RMB280 per mu (\$656 per hectare) for various mechanized applications in planting, harvesting and field management.

MY 2021/22 cane sugar production is estimated at 8.7 MMT, down 500,000 MT from the USDA official estimate. Insiders report this decline is mainly a result of lower sugar content in cane caused by higher-than-average rainfall and even frost in some production areas in Guangxi and Yunnan driving the recovery rate down about 0.6 percent to 12.2 percent. In addition, tight border controls, especially with Myanmar and Laos in the name of COVID mitigation, limits raw cane imports which are used to make cane sugar in Yunnan.

From October 2021 to February 2022 (MY 2021/22), China's raw cane imports from Myanmar dropped 73 percent (Table 1), compared to the same period in MY 2020/21, and following high levels over the previous 3 years. (Table 2) Insiders estimate that in MY 2021/22, Yunnan will produce nearly 200,000 MT of sugar made from imported cane, accounting for about 10 percent of its production.

¹ Guangxi government's sugar industry 5-year development plan (in Chinese) issued on Jan. 25,2022 http://www.gxaas.net/index.php/cms/item-view-id-46575.shtml. Yunnan government's agriculture (including sugar) 5-year development plan (in Chinese) issued on April 18, 2022 http://www.yn.gov.cn/zwgk/zcwj/yzf/202204/t20220418 240826.html

Table 1: Chinese imports of sugar cane (HS: 1212.93) between October – February in MY 2020/21

compared to MY 2021/22, metric tons

	Oct. 2020-Feb. 2021	Oct. 2021-Feb. 2022	Change
World	916,633	707,160	-22.85%
Laos	504,973	598,574	18.54%
Myanmar	403,706	108,586	-73.10%
Vietnam	7,952	0	-100%

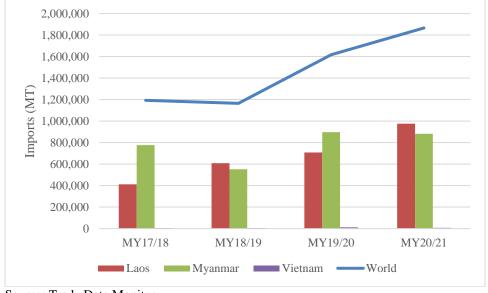
Source: Trade Data Monitor

Table 2: Chinese imports of sugar cane (HS: 1212.93) from MY 2017/18 – MY 2020/21, metric tons

	MY 2017/18	MY 2018/19	MY 2019/20	MY 2020/21
World	1,192,336	1,164,789	1,617,529	1,865,796
Laos	411,411	608,392	708,544	975,976
Myanmar	775,809	551,314	897,370	881,867
Vietnam	5,116	5,083	11,617	7,952

Source: Trade Data Monitor

Chart 1: China imports of sugar cane (HS: 1212.93) from MY 2017/18 – MY 2020/21, metric tons



Source: Trade Data Monitor

Laos, Myanmar and Vietnam are parties to the <u>Regional Comprehensive Economic Partnership (RCEP)</u> trade agreement with China therefore their cane exports to China are duty free.

To protect the interests of China's sugar growers, many of which are smallholder farmers, the local government sets an annual reference price for sugar cane. (Table 3) Both the millers and farmers respect this reference price in settling contracts. The MY 2022/23 reference price is forecast to remain unchanged from the previous year, varying from region-to-region between \$66-81 (RMB420-520, \$1=6.4RMB) per metric ton.

Table 3: Purchase Price of Sugar Cane in Major Producing Provinces (RMB, \$1=RMB6.4)

	Guangxi	Yunnan	Guangdong	Hainan
MY 2018/19	490-520	420-450	380-400	500
MY 2019/20	490-520	450	380-450	500
MY 2020/21	490-520	450	420	500
MY 2021/22	490-520	450	420	500
MY 2022/23 (est)	490-520	450	420	500

Source: Industry contacts and various news reports

Cane sugar accounts for over 85 percent of China's total sugar production. Sugarcane grows in the south and southwest parts of the country, mainly in Guangxi, Yunnan, Guangdong, and Hainan provinces. (Chart 2) Guangxi alone accounts for nearly 70 percent of total cane sugar production. The average yield of cane per hectare is about 65 metric tons, which translates into a sugar recovery rate between 12 and 13 percent.

Cane sugar producers face a variety of challenges including scarce labor, limited mechanization, and growing competition from other crops. The available labor pool is limited because the younger generation prefers to move to urban centers in search of work. This demand pushes labor prices higher. Farm labor costs in Guangxi are about \$27 (RMB170) per metric ton, or about one-third the price the farmer receives when cane is sold to the mills. Mechanized development is constrained by hilly terrain and small-scale farms. Growing other crops, especially other fruits including citrus and dragon fruit is becoming increasingly attractive with growing consumer demand; these products compete for the same land as sugar.

To stabilize cane production levels, the Guangxi government continues to provide financial incentives to encourage planting and promote mechanization in areas where it is geographically feasible. Cane farmers receive support for instituting mechanized seed and harvesting practices. Yunnan also offers growers various forms of support to keep overall cane acreage from declining.

Chart 2: China's major sugar cane production areas and percentage by province



Province	Percentage of sugar
	cane production
Guangxi	70%
Yunnan	21%
Guangdong	8%
Hainan	1%

Blank map: http://www.d-maps.com/carte.php?num_car=11570&lang=en edited by ATO Guangzhou

Beet Sugar Production

MY 2022/23 beet sugar production is forecast at 1 MMT, up 100,000 MT from the MY 2021/22 estimate. This projected increase assumes that cooler than normal temperatures in Xinjiang in the current year return to more normal temperatures in the coming year and incentives keep beet acreage stable. Though high corn prices will create an incentive to grow corn over beets in Inner Mongolia, beet sugar mills there are offering farmers increased support to keep farmers from switching to corn, and sugar mills running near capacity. This support is provided in the form of seeds, machinery, and field management practices.

MY 2021/22 beet sugar production is estimated at 900,000MT, down 200,000MT from the USDA official estimate and down 600,000MT from MY 2020/21 primarily because of strong corn prices which are leading farmers in Inner Mongolia to switch from growing beets to growing corn. The cold weather in Xinjiang in early MY 2021/22 also negatively impacted beet yield.

In addition to competition from corn, rising land rents are also contributing to downward pressure on beet production. Land rent in Inner Mongolia and Xinjiang provinces, which combined account for about 95 percent of beet sugar production, have seen land rent prices double or even triple since MY 2020/21. For example, land rent in Inner Mongolia has grown from \$923 per hectare (RMB400 per mu) in MY 2020/21 to as much as \$2,308-\$2,769 per hectare (RMB1000-1200 per mu) in MY 2021/22.

Sugar beet purchase prices are market driven and are specified in grower-miller contracts that are signed prior to planting. The MY 2021/22 purchase price for sugar beets ranges from \$80-\$88 (RMB510-560) per metric ton.

Table 4: Purchase Price of Sugar Beets in Major Producing Provinces (in RMB, \$1=RMB6.4)

	Inner Mongolia	Xinjiang	Heilongjiang	
MY 2018/19	530	460	N/A	
MY 2019/20	520	460	N/A	
MY 2020/21	540	460-510	520	
MY 2021/22	550	510-560	520	
MY 2022/23 (est)	550	510-560	520	

Source: Industry contacts and news reports

Beet sugar accounts for 10-15 percent of China's total sugar production. Sugar beets grow in the north and northwestern parts of China, mainly in Inner Mongolia, Xinjiang, and Heilongjiang provinces. (Chart 3) Inner Mongolia is the leading beet sugar producer, accounting for over 50 percent of beet production. Xinjiang is the second largest producer with 40 percent of production. The average sugar beet yield is about 52-54 metric tons per hectare, with a sugar recovery rate of 11-12 percent.

Chart 3: China's major sugar beet production areas and percentage by province



Province	Percentage of sugar beet production
Inner Mongolia	52%
Xinjiang	42%
Heilongjiang	2%
Others	4%

Blank map: http://www.d-maps.com/carte.php?num_car=11570&lang=en edited by ATO Guangzhou

Unlike the sugar cane growing areas in the south, the sugar beet growing areas in northern China are suitable for large-scale farming with a high level of mechanization. Higher levels of mechanization result in lower costs for labor, which traditionally ends up making the sugar beet industry more profitable than its cane sugar counterpart. However, as of 2020, profit margins have been shrinking due to increased land rental prices.

Centrifugal Sugar Production

MY 2022/23 total sugar production is forecast at 10 MMT, up 400,000 MT from the MY 2021/22 estimate. This projected increase assumes that weather returns to normal in both cane and beet production areas, COVID impacts on raw cane imports ease, and beet mills' incentives work to keep farmers planting sugar beets.

MY 2021/22 total sugar production is estimated at 9.6 MMT, down 700,000 MT from the official estimate of 10.3 MMT. The decline is mainly due to abnormal weather conditions in both cane and beet production areas, continued COVID related challenges, and crop competition leading to reduced beet acreage.

Industry insiders are bullish on MY 2022/23 sugar prices forecasting that world sugar prices will rise because high demand will continue.



Chart 4: China's sugar price per metric ton, April 2021 - April 2022

Source: Online market data (www.msweet.com.cn). Chart by ATO Guangzhou

Over the long term, industry experts expect China's sugar production to remain around 10 MMT annually. This will be largely driven by policies to incentivize stable cane production areas in Guangxi and Yunnan which account for over 80 percent of China's total sugar production. The gap between production and consumption is expected to be filled by imports. As Chinese consumption grows, and imports increase, China's domestic sugar price will tend to synchronize with the world price.

Consumption

MY 2022/23 sugar consumption is forecast at 15.8 MMT on the assumption that the current COVID related movement restrictions and challenges in cities will ease and spending will resume. China's shift to a dynamic zero COVID policy should lead to a gradual rebound of the economy.

MY 2021/22 sugar consumption is estimated at 15.5 MMT, down 300,000 MT from the official USDA estimate. This estimate is reduced because COVID-related lockdowns intended to limit COVID's spread will also limit sugar consumption; consumers will reduce their discretionary spending and logistical challenges will pose some hurdles to even large food processors. High sugar prices will also reduce the demand.

Industrial sugar typically accounts for about 60 percent of consumption while the remaining 40 percent goes to household use. Industrial use includes beverages (e.g., soda, juice, yogurt, and soymilk), ice cream, canned fruit, candy, bakery, pharmaceuticals, and other products. Amid the pandemic's resurgence in China in 2022, industrial use, particularly among the smaller companies is likely to slacken while large companies will increase their usage. Households, starting to adopt more baking at

home will be stable. In MY 2022/23, assuming the effects of the pandemic dissipate, industrial use is expected to rebound.

China's per capita sugar consumption is estimated between 11-12 kilograms, which is far behind the world average of more than 20 kilograms. Per capita consumption is expected to increase in the future as China's economy continues to grow and consumers diversify their diets. A significant part of the anticipated increase in consumption will come from consumers living in second tier, third tier and lower tier, developing cities.

Trade

MY 2022/23 sugar imports are forecast at 4.4 MMT, down slightly from the revised MY 2021/22 estimate. Domestic production is forecast up slightly to support recovering demand, but with world sugar prices forecast up, China may source from its stocks.

MY 2021/22 sugar imports are estimated at 4.5 MMT, down 500,000 MT from the official estimate. The high world sugar price and COVID-related import restrictions have curbed imports. From October 2021 to February 2022, China's imports of raw sugar were 2.25 MMT, down 30 percent from the same period in MY 2020/21. Brazil accounted for 89 percent of Chinese sugar imports.

China applies a tariff-rate quota (TRQ) on imported sugar. The within-quota tariff is 15 percent on 1.945 million metric tons. About 70 percent of the quota is allocated to state-owned enterprises (SOEs). The out-of-quota tariff is 50 percent.

Since July 2020, all out-of-quota sugar imports are subject to an automatic import licensing system which the government also uses to monitor imports of other bulk commodities, such as palm oil, soybeans, and meat. This system requires importers to apply and receive advance approval prior to import. The timeline for granting licenses can be inconsistent.

MY 2022/23 exports are forecast at 105,000 metric tons. These minimal export volumes are mostly destined for North Korea.

Stocks

MY 2022/23 sugar stocks are forecast down to 2.35 MMT. Industry sources predict stock levels will continue trending downward as the government will draw from stocks as the world sugar price remains high.

MY 2021/22 sugar stocks are estimated at 3.85 MMT, revised down from the previous official estimate because both sugar production and imports declined, while consumption remains stable from MY 2020/21.

Imports of Sugar Syrup and Powdered Sugar

(NOTE: Imports of sugar syrup are not included in PSD figures but do add supply to the China market and are therefore explained more here.)

Sugar syrup and powdered sugar (HS: 1702.90) imports during MY 2020/21 (Oct-Sep) were 806,293 MT (equivalent to over 560,000 MT on a raw sugar basis). MY 2019/20 imports were 802,948 MT, a growth of more than 10 times from MY 2018/19 (78,585 MT).

In the first five months of MY 2021/22, imports totaled 355,591 MT, down 20 percent from the same period in MY 2020/21. The decline is mainly due to the increase of the world sugar price. Thailand accounts for 83 percent of China's sugar syrup and powdered sugar imports, followed by Vietnam and Malaysia.

In December 2020, China introduced new harmonized tariff schedule (HTS) codes and the corresponding most favored nation (MFN) tariff of 30 percent for sugar syrup imports to monitor this growing trade more closely. (Table 5) The duty is not expected to limit trade volumes since major supplying countries maintain duty free access as part the China-ASEAN (Association of Southeast Asian Nations) and the RCEP trade agreement.

Table 5: New HTS codes for Sugar Syrup and Powdered Sugar effective since Dec. 2020

New HTS Codes Replacing the	New HTS Codes Replacing the HTS Code 1702.9000					
New HTS Code	Description					
1702.9011	-Cane sugar or beet sugar solution					
1702.9012	-Cane sugar, beet sugar and other sugars in simple solid mixture with					
	more than 50% by weight of cane sucrose					
1702.9090	-Other					
1702.9090 10	Artificial honey					
1702.9090 90	Other sugars, syrup and caramel (including invert sugar, in the dry					
	state 50%)					

Source: China Customs

Imported sugar syrup and powdered sugar are mainly used in sugar refineries and the food processing industry as ingredients. So far, there has been no sign that China will intervene to curb the imports.

Other Sweeteners

According to the China Starch Industry Association, in calendar year (CY) 2021, starch-based sugar production was 14.9 MMT, up 19.8 percent over CY2020 because of the increased sugar price. Since the middle of 2021, centrifugal sugar prices have been climbing, reaching \$953 (RMB6100) per metric ton in April 2022. This has caused the price gap between starch-based sugar products, such as high fructose corn syrup (HCFS) F55, and conventional sugar to widen (Chart 4). As a result, some beverage and food manufacturers look to corn syrup to control costs. In the first quarter of CY2022, the price of HFCS F55 was around \$516 (RMB3300) per metric ton, about 10 percent higher than that of the same period in 2021.

China's government restricts the development of the saccharine industry to protect the domestic sugar market and to "address environmental, food safety and consumer health concerns". The government does this by imposing limits and controls on production and domestic sales, requiring an annual document review and site inspection, and only allowing saccharine to be used as a food additive.

Only three plants are licensed for saccharine production in China. These plants are monitored and inspected by the China Sugar Association (CSA) to ensure compliance with production guidelines and limits. The annual saccharine production quota is 19,000 metric tons, with 3,200 metric tons designated for domestic sale and 15,800 metric tons for export. CSA has not published the saccharine production of CY2021.

The sugar industry is starting to see some consumer calls to reduce sugar consumption. In response, the Chinese Sugar Association has started planning for a public relations campaign to address this concern.

Table 6: Sugar, Centrifugal: Production, Supply and Distribution

Sugar, Centrifugal	2020/2	2021	2021/2	2022	2022/2	2023			
Market Year Begins	Oct 2	et 2020 Oct 2021		2021	Oct 2022				
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post			
Beginning Stocks (1000 MT)	4027	4027	4847	5343	0	3853			
Beet Sugar Production (1000 MT)	1500	1500	1100	900	0	1000			
Cane Sugar Production (1000 MT)	9100	9100	9200	8700	0	9000			
Total Sugar Production (1000 MT)	10600	10600	10300	9600	0	10000			
Raw Imports (1000 MT)	5200	5670	4400	3900	0	3800			
Refined Imp.(Raw Val) (1000 MT)	650	670	600	600	0	600			
Total Imports (1000 MT)	5850	6340	5000	4500	0	4400			
Total Supply (1000 MT)	20477	20967	20147	19443	0	18253			
Raw Exports (1000 MT)	13	13	5	3	0	5			
Refined Exp.(Raw Val) (1000 MT)	117	111	150	87	0	100			
Total Exports (1000 MT)	130	124	155	90	0	105			
Human Dom. Consumption (1000 MT)	15500	15500	15800	15500	0	15800			
Other Disappearance (1000 MT)	0	0	0	0	0	0			
Total Use (1000 MT)	15500	15500	15800	15500	0	15800			
Ending Stocks (1000 MT)	4847	5343	4192	3853	0	2348			
Total Distribution (1000 MT)	20477	20967	20147	19443	0	18253			
(1000 MT)	1000 MT)								

Table 7: Sugar Cane: Production, Supply and Distribution

Sugar Cane for Centrifugal	2020/2	2021	2021/	2022	2022/2023	
Market Year Begins	Oct 2	021	Oct 2022		Oct 2022	
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (1000 HA)	1191	1191	1210	1210	0	1210
Area Harvested (1000 HA)	1191	1191	1210	1210	0	1210
Production (1000 MT)	76820	76820	78000	78000	0	7800
Total Supply (1000 MT)	76820	76820	78000	78000	0	7800
Utilization for Sugar (1000 MT)	76820	76820	78000	78000	0	7800
Utilizatn for Alcohol (1000 MT)	0	0	0	0	0	0
Total Utilization (1000 MT)	76820	76820	78000	78000	0	7800
(1000 HA), (1000 MT)						

Table 8: Sugar Beets: Production, Supply and Distribution

Sugar Beets	2020/2	2021	2021/2022		2022/2023	
Market Year Begins	Oct 2	021	Oct 2022		Oct 2022	
China	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (1000 HA)	260	260	180	160	0	160
Area Harvested (1000 HA)	260	260	180	160	0	160
Production (1000 MT)	13600	13600	9520	8700	0	8700
Total Supply (1000 MT)	13600	13600	9520	8700	0	8700
Utilization for Sugar (1000 MT)	13600	13600	9520	8700	0	8700
Utilizatn for Alcohol (1000 MT)	0	0	0	0	0	0
Total Distribution (1000 MT)	13600	13600	9520	8700	0	8700
(1000 HA), (1000 MT)						

Attachments:

No Attachments