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# **Report Name:** Sugar Annual

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## **Report Highlights:**

Australia's sugar production is forecast to increase to 4.2 million metric tons (MMT) in marketing year (MY) 2024/25 from an estimated 4.1 MMT in MY 2023/24. This increase is due to an expected rise in sugar cane crush to 30.5 MMT in MY 2024/25, from an estimate of 29.8 MMT in the previous year. The increase in production is partly driven by an anticipated small increase in sugar cane harvest area for MY 2024/25, along with a modest increase in yield. With overall good growing conditions for the first nine months, the sugar content of the cane is forecast at the past 10-year average. Raw sugar exports are forecast to increase to 3.45 MMT in MY 2024/25 from the prior year estimate of 3.35 MMT, while refined sugar exports are expected to remain very low at 10,000 metric tons (MT). Domestic sugar consumption at around 20 percent of production is forecast to rise due to strong population growth in Australia.

## **EXECUTIVE SUMMARY**

Australia's sugar production is forecast to increase to 4.2 million metric tons (MMT) in marketing year (MY) 2024/25 from an estimated 4.1 MMT in MY 2023/24. This increase is due to a forecast rise in sugar cane crush to 30.5 MMT in MY 2024/25 from an estimate of 29.8 MMT in the previous year. The production increase is mainly driven by a forecast increase in harvest area and a small improvement in sugar cane yield, after very good crop growth conditions for most production regions for the first nine months of the season. This is dampened by the expectation of lower production from North Queensland, impacted by too much rain and less than usual sunlight during the most important growing periods of February/March 2024. The anticipated larger harvest area is a reversal of the historical downward trend. This is due to the strong world sugar prices in recent years, encouraging growers to increase production.

Growing conditions for the first nine months have broadly been good, and the rainfall forecast for the coming months is around average. With this, the sugar content of the sugar cane for MY 2024/25 is forecast at around the past 10-year average, in the absence of adverse weather conditions during the MY 2024/25 harvest period or major sugar mill breakdowns preventing a normal finishing period.

Domestic consumption of sugar is forecast to rise for MY 2024/25 due to strong population growth. Australia typically consumes around 20 percent of sugar production, so is reliant on the world sugar export market.

Of the total exports of sugar, over 99 percent is raw sugar, and the remaining is refined sugar. Raw sugar exports are forecast to increase to 3.45 MMT in MY 2024/25 from the prior year estimate of 3.35 MMT due to an increase in forecast production, and an expectation of continuing firm world demand. Refined sugar exports have dropped from low levels in MY 2022/23, to a very low 10,000 metric tons (MT) in the forecast and estimate years. This drop relates to Singapore, Australia's previous major destination for refined sugar, sourcing its requirements from other suppliers.

## SUGAR CANE

## Overview

Australian sugar cane is grown on coastal plains and valleys along a 2,100 km stretch of Australia's eastern coastline between Mossman in north Queensland (QLD) and Grafton in northern New South Wales (NSW). North QLD has a tropical climate with average rainfall as high as 3,500mm (138 inches) per annum, transitioning to the sub-tropical climate in northern NSW with average rainfall of approximately 1,500mm (59 inches). The key growing regions are shown in Figure 1, and their general characteristics are:

North Queensland	35 percent of the national production. Tropical climate with rainfall of up to 3,500mm (138 inches) annually. Production is more likely to be impacted by excessive rain rather than drought.
Burdekin	25 percent of the national production. Tropical climate with rainfall of less than 1,000mm (39 inches) annually. Highly reliant on irrigation. Highest yielding region.
Central Queensland	25 percent of the national production. Tropical climate with rainfall of approximately 1,500mm (59 inches) annually. Some areas achieve good yields with no irrigation and others use partial irrigation after harvest in the lead-up to wet season rainfalls.
South Queensland	10 percent of the national production. Sub-tropical climate with an average rainfall of approximately 1,100mm (43 inches) annually. Dependent on irrigation water availability.
Northern NSW	five percent of the national production. Sub-tropical climate with an average rainfall of approximately 1,500mm (59 inches) annually. Lower average temperatures and humidity create slower-growing conditions. Crop growing cycles range from 12 months to 24 months depending on prevailing conditions.



Figure 1 - Australian Sugarcane Production Areas

Source: FAS/Canberra

The major sugar cane producing areas are in tropical regions. They depend on high rainfalls and humid sunny conditions during the wet season period that typically runs from January to March. A positive wet season not only assists the production of the current crop in the lead-up to harvest but also sets up a high soil moisture profile for the successful planting of fallow and replant areas, which in the tropical northern areas typically occurs between April and July. It also assists the regrowth of the early harvested sugar cane crop. Well-timed smaller follow-up rainfall after the wet season period is also important for final sugar cane production outcomes.

Australia has approximately 3,044 sugar cane growers (ABARES – Farm Survey Analysis 2021) in a deregulated market. With typically 75 to 80 percent of production exported, the domestic sugar price is directly influenced by the world market price - the benchmark is the 'Sugar #11 Futures'. Growers have three-year sugar cane supply agreements with the sugar mill in their area. Although the industry was deregulated in 2006, the sugar mills opted to continue a single-desk marketing arrangement through Queensland Sugar Limited (QSL). In 2013, however, the millers decided to cease this single-desk marketing arrangement and provided the required three years' notice to end it. Since 2017, growers can choose whether the rights to sell their sugar go to their own local sugar supply mill or QSL. The current

structure also enables other third-party marketers to offer their services. Sugar cane growers can also forward lock sugar prices on a portion of their annual production typically for up to three years. This assists in mitigating fluctuations in sugar prices from year to year. The industry grower representative body, "Canegrowers", has rolled out a 'Pricing Essentials' education program for their members to support growers to actively manage their price risk.

Sugar cane is a perennial tropical C4 plant originating from New Guinea. The crop germinates from billets (approximately a 30cm portion of a sugar cane stalk) planted in rows into a soil bed. The soil beds are raised to minimize waterlogging, particularly during the high rainfall wet season periods. After germination, plants will typically tiller and form 4-12 stems. The typical growing period between harvest is 12 months. However, in northern New South Wales the growing period is from 12 to 24 months and varies according to prevailing climatic conditions. At harvest, the entire plant is cut just above ground level, and the stalks are cut to approximately 30cm in length by machinery. The stalks are transported from the paddock by haulout wagons or trucks before being transported to the processing mill via small gauge rail or road transport. After farmers harvest the first planted sugar cane, successive crops regrow from the stubble, which are referred to as ratoons. After the first harvest, annual production typically declines each subsequent year and farmers typically allow three to four ratoons. Farms typically have approximately 15 percent of their total sugar cane farming area as fallow each season, planted from April to June in tropical regions. A further portion of the crop, typically 5-10 percent, is replanted (i.e., no fallow period) shortly after the final ratoon is harvested. This approach achieves a relatively even age profile of sugarcane plants across each farm and assists in optimizing production and achieving a relatively stable production from year to year. The typical fallow and replant program and timing differs in the sub-tropical region of northern New South Wales from that of tropical regions.

There are 22 sugar mills (see Figure 2) processing sugar cane, typically from June to late November. Nine entities ranging from public listed companies to public unlisted companies; one private company and one cooperative are the mills' owners. The mills process sugar cane within 24 hours of harvest, producing raw sugar and by-products such as molasses, bagasse, ash and mill mud. Molasses is generally used in the animal feed industry, and one of the Wilmar mills in central Queensland also produces ethanol from molasses. Meanwhile, multiple mills have cogeneration plants using bagasse to produce electricity for their own needs and surplus power is fed into the local electricity grid. Ash and mill mud are used as fertiliser by sugar cane producers.

Approximately 75 to 80 percent of raw sugar production is delivered and stored at one of six ports on the Queensland coast for subsequent export. A small amount of raw sugar is also domestically refined for consumption in Australia and a relatively small volume of refined sugar is exported. There are a total of four sugar refineries owned by three entities. Three refineries are in the growing regions (see Figure 2) and one is in Melbourne, Victoria. There are six ports where sugar is stored and loaded onto ships for export. These port facilities are all owned by Sugar Terminal Limited (STL), the major shareholder is

QSL. QSL manages the terminals; however, STL recently announced that they will manage their terminals moving forward.



Figure 2 – Australian Sugar Mill and Refinery and Port Terminal Locations

Source: FAS/Canberra using data from Australian Sugar Milling Council

Despite the significant variations in rainfall from year to year, the risk of cyclone damage experienced in Australia, and extensive world sugar price fluctuations, sugar cane and raw sugar production does not typically vary greatly from year to year. Over the last 10-year period, raw sugar production has varied from 4.11 MMT to 4.89 MMT (see Figure 3), a variation of around  $\pm$  8 percent. Raw sugar production is closely correlated to the area of sugar cane harvested (see Figure 3).



Figure 3 – Australian Sugar Cane Area and Raw Sugar Production History

Source: Australian Sugar Milling Council (ASCM) Note: (e) ASCM Provisional results

There are a series of key factors that influence overall production:

- 1) Dry conditions around the time of planting can lead to a failed crop establishment, negatively impacting the harvested area.
- 2) The impacts of cyclones, which occur from time to time, mainly in tropical regions, can significantly affect yields, and crops may take 2-3 seasons to fully recover.
- 3) Wet weather during harvest can lead to some areas of sugar cane remaining unharvested and carried over to the following year. It's crucial to manage this situation as these carry-over crops can have high yields but usually have low sugar content and are far from optimal.
- 4) Significant mill breakdowns during the crush can extend the harvest period by weeks and may increase overall yield in that season. Still, they will have a negative impact on the following season as the late-harvested crop has a shorter growing period.
- 5) Grower sentiment associated with large variations in sugar prices not only influences planted area but also the level of crop inputs such as fertilizer, which influence yields.

However, the nature of the sugar cane plant with a 12-month growing cycle, along with the crop's typical three to four ratoons, has a strong stabilizing influence over the crop and subsequent raw sugar production from year to year.

## Production

FAS/Canberra forecasts MY 2024/25 sugar cane production at 30.5 MMT, a modest 2.3 percent increase over the MY 2023/24 estimated production of 29.8 MMT. This forecast is almost six percent below the previous 10-year average of 32.3 MMT. The improvement in overall production for MY 2024/25, from

the prior year, is mainly related to a slight increase in harvested area and a small yield increase. This has been encouraged by strong sugar prices in recent years.

The sugar cane area harvested has broadly declined over the last decade, but more so in the last five years (see Figure 4). This is generally associated with an extended period of relatively low sugar cane prices. The situation has resulted in some growers opting out of the industry, shifting to other agricultural pursuits along with some converting farms to residential and lifestyle properties. Some past dips in planted area are associated with major weather events such as cyclones and dry conditions from which the industry recovers some harvest area in subsequent years. All regions have had a significant decline in area harvested over the last decade. However, the southern Queensland sub-tropical area has had the greatest rate of decline. Over the last five years, farmers have substantially converted sugar cane areas to other horticultural crops, mainly macadamia nuts. Due to large plantings in Australia and other parts of the world, macadamia nut prices have fallen considerably over recent years. Industry sources indicate that the growth of the macadamia nut industry in the region has stalled. Further, some areas planned for macadamia trees are reported to revert to sugar cane production.



Figure 4 – Sugar Cane Harvest Area Trend

Canegrowers Annual Reports / FAS/Canberra Source:

World sugar prices began to climb in mid-2020 (see Figure 5), and this has been an important factor that has contributed to arresting the slide in the sugar cane harvest area and contributing to the forecast small increase in area for MY 2024/25. From mid-2021, world sugar prices remained strong before surging again in early 2023. Over recent years, the sustained high sugar prices have provided strong economic returns for Australian sugar cane producers and instilled confidence to optimize their plantings. However, the reality is that much of the sugar cane growing area has been lost to competing interests

over the last decade. Any growth in the harvest area will be relatively small and far from recovering the lost area over the last decade.





Source:Intercontinental Exchange (ICE) #11Notes:Chart data points are weekly averages

In the first nine months of the production season from July 2023 to March 2024, farmers experienced average rainfalls across the sugar cane-producing areas, other than North Queensland which had well above-average rainfall (see Figure 6). With broadly good climatic conditions, all sugar cane-producing regions, other than North Queensland, are expected to achieve increased production for the forecast year. This is partly due to the forecast increase in planted area, but also a forecasted small increase in yield from the prior year. North Queensland typically has high rainfall. In this region, the highest-yielding crops are usually produced when the area has below-average rainfall. Above-average rains in this region cause soil waterlogging and impede new planting, fertilizer application, and weed management. Additionally, above-average rainfall during the wet season typically results in extended periods of overcast conditions, limiting sunlight exposure and crop growth.



Figure 6 – Rainfall Decile Map - July 2023 to March 2024

Source: Australian Bureau of Meteorology / FAS/Canberra

The MY 2023/24 harvest finished two to four weeks longer than usual, with some regions finishing at the end of December 2023. This was due to the above-average rains in North Queensland, Burdekin, and Central Queensland regions during the early crop growth phase (see Figure 7), which caused multiple delays in harvesting the MY 2023/24 crop. Some sugar cane was left unharvested, but less than for the prior year and harvest also finished a little earlier than the prior year. The improved harvest finish for MY 2023/24, although still less than desirable, supports improved yields and sugar content for the forecast year. Good practice is for harvest to be completed by early to mid-November each year. This results in a shorter crop growing period the following year. The latter would reduce yield potential, and lead to a lower sugar content than expected.



Figure 7 – Rainfall Decile Map - January to March 2024

Source: Australian Bureau of Meteorology / FAS/Canberra

At the start of April 2024, sugar cane crops are well advanced and a short period away from the commencement of harvest at the end of May 2024. Some rainfall after the wet season in the lead-up to and during harvest helps achieve higher yields. The Australian Bureau of Meteorology forecast indicates an average chance of exceeding median rainfall in the coming months across all sugar cane production regions (see Figure 8). If realized, this will support a small lift in the overall yield forecast for MY 2024/25.



Figure 8 - Rainfall Forecast Map - May to July 2024

Source: Australian Bureau of Meteorology / FAS/Canberra

MY 2023/24 sugar cane production has been revised downwards substantially by FAS/Canberra to 29.8 MMT, compared to the forecast from six months earlier of 31.0 MMT. This revision is based on Australian Sugar Millers Council (ASMC) results from the completed harvest. This is a substantial drop, particularly when considering that at the commencement of harvest (May 2023), the ASMC estimates were even higher at 31.6 MMT.

Despite sugar mills in Australia having relatively sophisticated methods of estimating sugar cane crop yields, which they use in the scheduling of their harvest programs, the results can vary substantially from the initial estimates after harvest commences. These estimates are updated as the harvest season progresses, considering actual paddock-by-paddock results year to date and prevailing seasonal conditions. For MY 2023/24, the sugar cane production variance from the initial estimate was greater than usual. Some of this gap is associated with a small area that remained unharvested in MY 2023/24

due to the multiple delays caused by above average rains during harvest. However, the reasons for most of the variance are unclear.

## SUGAR

#### Production

FAS/Canberra forecasts Australia's MY 2024/25 sugar production at 4.2 MMT, a 2.4 percent increase over the MY 2023/24 estimated production of 4.1 MMT. The increase is mainly due to the expected 2.3 percent improvement in overall sugar cane production.

The sugar content of sugar cane for MY 2024/25 is expected to be in line with the prior year and the past 10-year average (see Figure 9). This is mainly due to the expectation of typical conditions during the harvest, which allows harvest to be completed earlier than for MY 2023/24. This will enable most of the crop to be harvested before the sugar content deteriorates. However, countering this positive is that the forecast crop will have a shorter growing period, which will impact the maturity of the crop at harvest. This would likely have a negative impact on the potential sugar content. So, sugar content is expected to remain steady for the forecast year. However, abnormal weather conditions during harvest and major breakdowns at the mills can disrupt the harvest. This can have a negative impact on the overall crop sugar content.



Figure 9 – Historical and Forecast Sugar Content of Sugar Cane

Source:Canegrowers / Australian Sugar Milling Council / FAS/CanberraNote:CCS = Commercial Cane Sugar (a measure of sugar content of sugar<br/>cane used by millers)

The FAS/Canberra sugar production estimate of 4.1 MMT for MY 2023/24 is unchanged from the estimate from six months prior. The sugar content of the sugar cane for MY 2023/24 was much improved compared to the prior year (see Figure 10), and the result was in line with the previous 10-year average. There were substantial weather disruptions during the MY 2023/24 harvest, but less of an impact than the previous year, and the harvest was able to be completed later than ideal but sooner than the prior year. The sugar content of sugar cane can deteriorate quickly from the start of December, and this impact was substantial in MY 2022/23. For MY 2023/24, there was a deterioration in the sugar content of sugar cane from the start of December 2023, but harvest finished sooner, and there was less volume of sugar cane harvested. This lessened the impact on the average sugar content for the whole crop for MY 2023/24 compared to the prior year.



Figure 10 – Sugar Cane Harvest, Progressive CCS – MY 2022/23 to MY 2023/24

Source:Australian Sugar Milling CouncilNote:CCS is a measure of sugar content in sugar cane

## Consumption

Domestic sugar consumption for MY 2024/25 is forecast to increase to 930,000 MT from the MY 2023/24 estimate of 900,000 MT. This is mainly due to the current rapid population growth in Australia.

The Australian Bureau of Statistics data shows that population growth for the year ending June 30, 2023, was almost two and a half percent. Population growth remained strong in the second half of 2023 and immigration in January 2024 was at a record level. The Australian government anticipates that population growth will remain strong in 2024 but at a somewhat slower pace. The strong population growth accounts for much of the forecast rise in domestic sugar consumption.

## Trade

Raw sugar exports in MY 2024/25 are forecast to increase to 3.45 MMT from an estimate of 3.35 MMT in MY 2023/24. This increase directly relates to the forecast of an increase in sugar production.

Around 80 percent of Australian sugar is exported, raw sugar represents over 99 percent, with the balance being refined sugar. With relatively high production costs in Australia compared to other major producers, Australia has reduced its refined sugar exports from around 200,000 MT to 10,000 MT over the last decade. There is no expectation that refined sugar exports will rebound significantly in the coming years.

The major importers of Australian raw sugar over recent years have consistently been Japan, Indonesia, and South Korea (see Figure 11). These three nations have accounted for around 85 to 90 percent of the overall results. New Zealand and the United States account for around 10 percent of overall exports in recent years. In the past, Australia has exported well over 4 MMT of raw sugar, and with current high prices and demand there is little concern that Australia can find markets for the forecast of 3.45 MMT.

FAS Canberra has revised MY 2023/24 raw sugar exports upwards to 3.35 MMT, compared to the official USDA estimate of 3.20 MMT. This upward revision is largely associated with a big drop in the estimated refined sugar exports. Much of the higher volume of raw sugar exports is associated with a substitution away from refined sugar exports. The drop in refined sugar exports is directly attributed to the fall in demand from Singapore.

Other nations' imports of Australian raw sugar in the marketing year-to-date (July 2023 to February 2024) reached almost 2.6 MMT. On an annualized basis, after taking into account monthly seasonality variations, exports for MY 2023/24 are on track to achieve the estimated 3.35 MMT.

A further factor impacting Australian sugar exports is that the Australian dollar has been relatively weak, at around AU\$1.51 to one U.S. dollar for much of MY 2023/24. This has provided Australia with a competitive advantage. Some Australian economists anticipate that the Australian currency will strengthen toward the end of 2024 to around AU\$1.40 to one U.S. dollar. If the economists' predictions are realized, this would weaken the competitiveness of Australian sugar exports for the forecast year. However, world sugar prices are relatively high and a shift in the currency of this scale is not expected to have a major detrimental impact on Australian sugar cane growers and their sentiment towards increasing production.



Figure 11 – Major Importers of Australian Raw Sugar (July to February)

Source: Trade Data Monitor (data as reported by importing countries)

Singapore was Australia's major destination for Australia's small volume of refined sugar exports. After MY 2022/23 Singapore has sourced its refined sugar needs from other existing suppliers. Given that Australia is a relatively high-cost producer relative to its major competitors, it is difficult to foresee that the trade of refined sugar to Singapore will rebound in the near term.

Australian imports of refined sugar are very low and equate to just over one percent of domestic consumption. FAS/Canberra forecasts refined sugar imports to remain stable at 8,000 MT in MY 2024/25, in line with the estimate for MY 2023/24.

## Stocks

End of year stocks of sugar in Australia are typically very low. This relates to the close alignment of the start of the sugar cane harvest season (end of May) with the beginning of the marketing year (July). Exports of sugar typically ramp up in July, around one month from the start of harvest, and remain high through to December (one month after harvest ends in November). For the remainder of the marketing year, from January to June, export quantities are lower because this period is used to clear stocks in the lead-up the commencement of the following harvest.

Sugar Cane for Centrifugal	2022/2023 Jul 2022		2023/2024 Jul 2023		2024/2025 Jul 2024	
Market Year Begins						
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (1000 HA)	0	0	0	0	0	0
Area Harvested (1000 HA)	344	328	350	330	0	335
Production (1000 MT)	32600	32600	33500	29800	0	30500
Total Supply (1000 MT)	32600	32600	33500	29800	0	30500
Utilization for Sugar (1000 MT)	32600	32600	33500	29800	0	30500
Utilizatn for Alcohol (1000 MT)	0	0	0	0	0	0
Total Utilization (1000 MT)	32600	32600	33500	29800	0	30500
(1000 HA),(1000 MT)						

## Table 1 - Production, Supply, and Distribution of Sugar Cane

## Table 2 - Production, Supply, and Distribution of Centrifugal Sugar

Sugar, Centrifugal	2022/2023 Jul 2022		2023/2024 Jul 2023		2024/2025 Jul 2024	
Market Year Begins						
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks (1000 MT)	294	294	384	784	0	634
Beet Sugar Production (1000 MT)	0	0	0	0	0	0
Cane Sugar Production (1000 MT)	4200	4300	4100	4100	0	4200
Total Sugar Production (1000 MT)	4200	4300	4100	4100	0	4200
Raw Imports (1000 MT)	2	2	2	2	0	2
Refined Imp.(Raw Val) (1000 MT)	8	8	8	8	0	8
Total Imports (1000 MT)	10	10	10	10	0	10
Total Supply (1000 MT)	4504	4604	4494	4894	0	4844
Raw Exports (1000 MT)	3200	2900	3200	3350	0	3450
Refined Exp.(Raw Val) (1000 MT)	50	50	100	10	0	10
Total Exports (1000 MT)	3250	2950	3300	3360	0	3460
Human Dom. Consumption (1000 MT)	870	870	900	900	0	930
Other Disappearance (1000 MT)	0	0	0	0	0	0
Total Use (1000 MT)	870	870	900	900	0	930
Ending Stocks (1000 MT)	384	784	294	634	0	454
Total Distribution (1000 MT)	4504	4604	4494	4894	0	4844
(1000 MT)						

#### Attachments:

No Attachments