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**Report Highlights:**

Australia's sugar production is expected to increase to 4.5 million metric tons (MMT) in marketing year (MY) 2020/21, from 4.285 MMT in MY 2019/20. If realized this would be in line with average production over the last 15 years. The primary driver for higher sugarcane production is a general improvement in climatic conditions, including good wet seasons rainfalls across most sugarcane growing regions in Australia. With higher expected supply, raw sugar exports in MY 2020/21 are forecast to increase to 3.4 MMT, from a revised estimate of 3.2 MMT in MY 2019/20.

## Executive Summary

Australia's sugar production is expected to increase to 4.5 million metric tons (MMT) in marketing year (MY) 2020/21, from 4.285 MMT in MY 2019/20. If realized this would be in line with average production over the last 15 years. This increase is due to an expected rise in sugar cane crush to 32 MMT in MY 2020/21, from 30 MMT the previous year. A general improvement in climatic conditions across most of the sugarcane growing regions is the primary driver for the expansion in production. Generally good wet season rainfalls from January to March 2020 across all sugarcane growing areas and an assumption of approximately median rainfalls over the April to June 2020 period underpins the forecast MY 2020/21 sugar production.

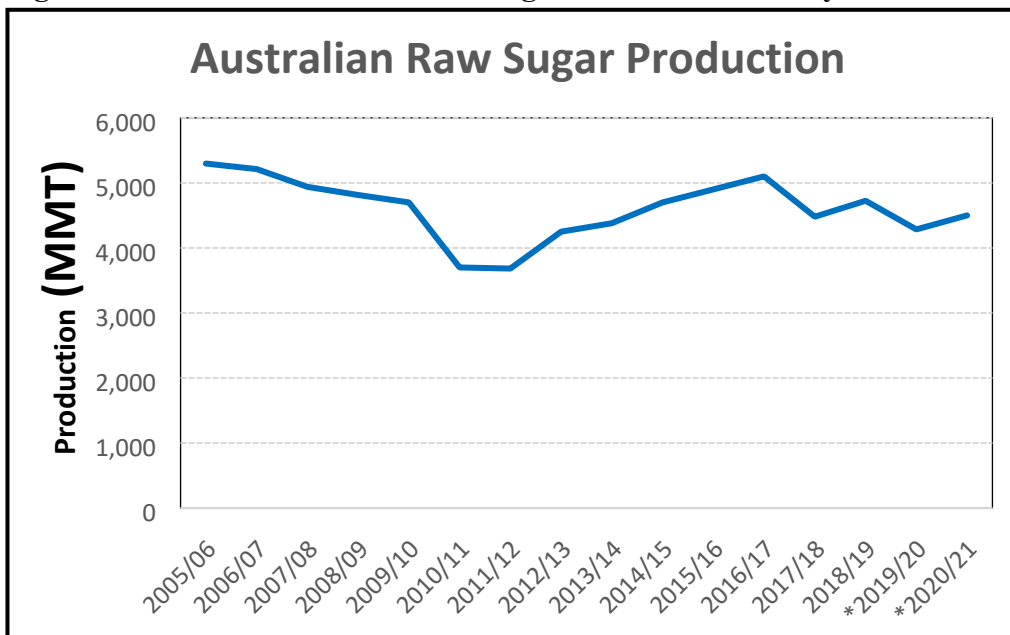
Total exports of sugar, of which 95 percent is raw sugar and 5 percent refined, are forecast to increase to 3.54 MMT in MY 2020/21, from the prior year export estimate of 3.32 MMT.

## Production

FAS/Canberra forecasts sugarcane production to increase to 32 MMT in MY 2020/21, from 30 MMT in MY 2019/20. This increase from prior year production is a result of improvements in climatic conditions in most of the key producing regions. The sugarcane production forecast equates to a raw sugar forecast of 4.5 MMT in MY 2020/21, compared to 4.285 MMT in MY 2019/20.

Below average rainfall throughout most of the key sugar production regions, and in particular southern parts of Queensland and northern New South Wales (NSW), had a negative impact on production in MY 2019/20. Also, localized flooding in some northern growing areas also impacted the crop.

**Figure 1 – Australian Annual Raw Sugar Production History**



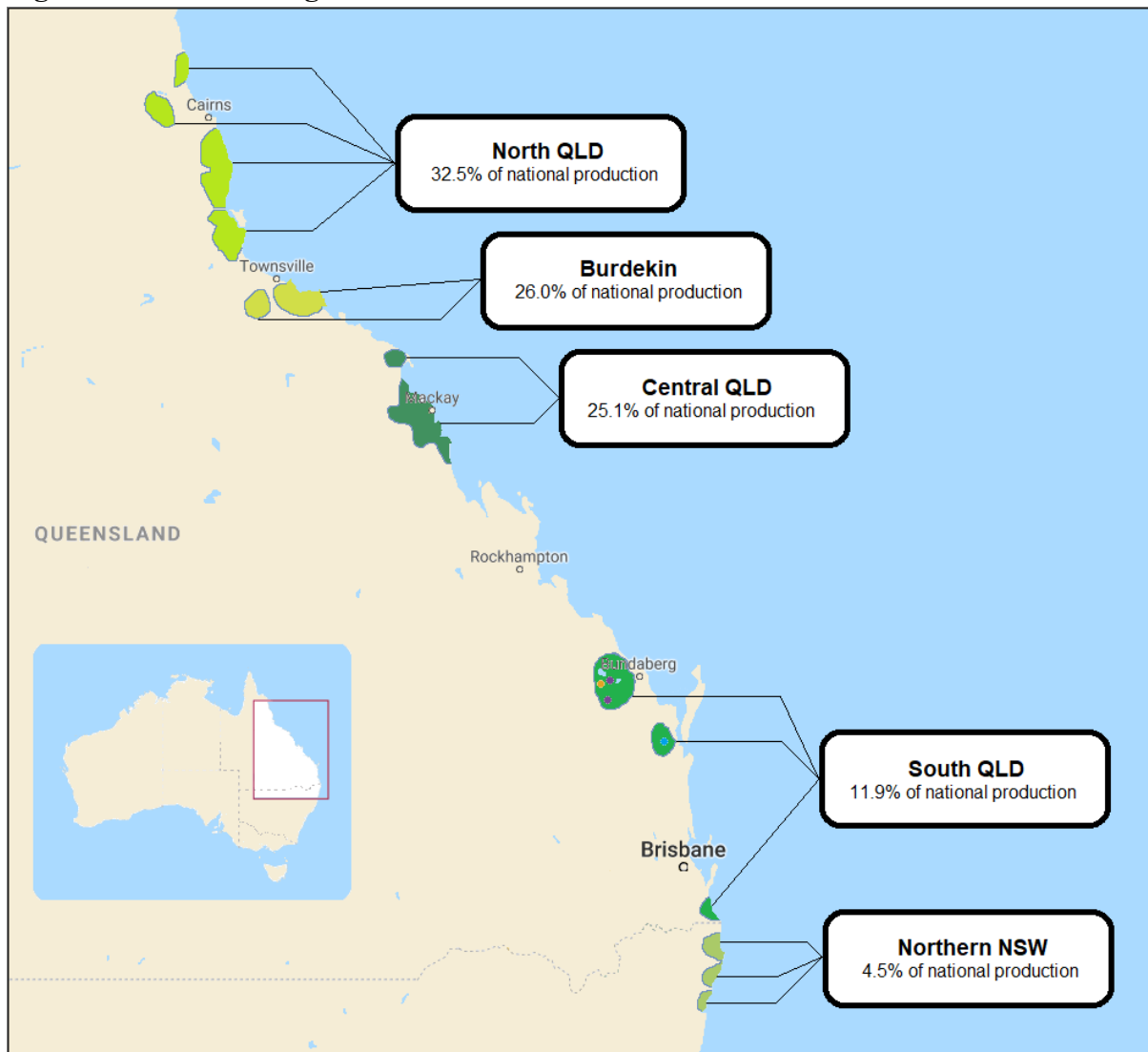
Source: FAS PS&D \*FAS/Canberra estimates and forecasts

The raw sugar production history as shown in Figure 1 illustrates that the MY 2020/21 production forecast of 4.5 MMT is at approximately the 15-year average of 4.55 MMT, 6 percent below the recent peak in MY 2016/17 and 22 percent above the recent low in MY 2011/12.

Australia's sugarcane is grown along coastal plains and valleys along a stretch 2,100km of Australia's eastern coastline between Mossman in far north Queensland (QLD) and Grafton in northern New South Wales (NSW). Far north QLD has a tropical climate with average rainfall in the area 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 2 and their general characteristics are:

North Queensland	32.5 percent of national production. Tropical climate with rainfall of up to 3,500mm (138 inches) per annum. Production is more likely to be impacted by excessive rain rather than drought.
Burdekin	26.0 percent of national production. Tropical climate with rainfall of less than 1,000mm (39 inches) per annum. Highly reliant on irrigation. Highest yielding region.
Central Queensland	25.1 percent of national production. Tropical climate with rainfall of approximately 1,500mm (59 inches) per annum. 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	11.9 percent of national production. Sub topical climate with average rainfall of approximately 1,100mm (43 inches) per annum. Dependent on irrigation water availability.
Northern NSW	4.5 percent of national production. Sub-tropical climate with average rainfall of approximately 1,500mm (59 inches) per annum. Lower average temperatures and humidity creating slower growing conditions. Crop growing cycles range from 12 months to 24 months dependant on prevailing conditions.

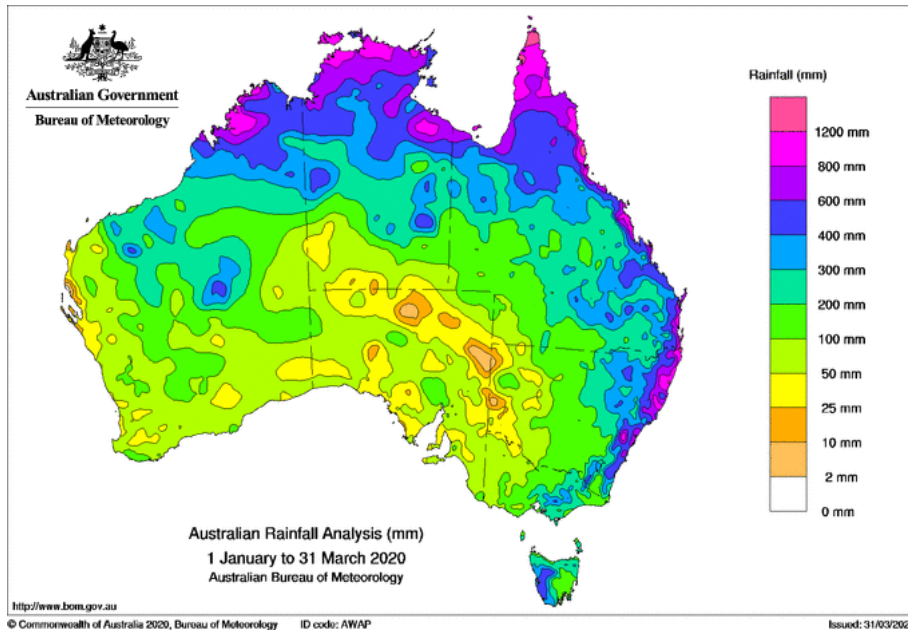
**Figure 2 Australian Sugarcane Production Areas**



Source: FAS/Canberra

Most of the sugarcane producing areas are dependent on good rainfalls and humid sunny conditions during the wet season period that typically runs from January to March. A positive wet season not only assists production of the current crop in the lead up to harvest but also sets up a high soil moisture profile for a successful planting of fallow area and replant areas, which typically occurs between April and July. It also assists the regrowth of the early harvested sugarcane crop. Figure 3 below shows high rainfalls in the January to March 2020 wet season period in the all of the production areas along the east coast of QLD and northern NSW which assists in providing a degree of confidence in forecasting an increase in production in MY 2020/21.

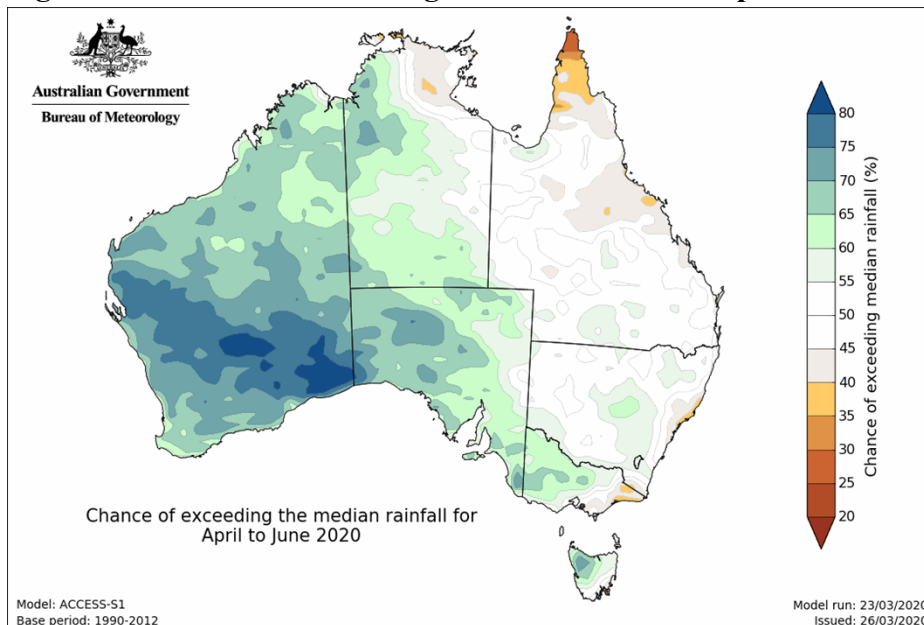
**Figure 3 – Rainfall Totals January to March 2020**



Source: Bureau of Meteorology

Follow up rainfall after the wet season period is also important for the final sugarcane production outcomes for the MY 2020/21. The Bureau of Meteorology forecast for the April to June period is for a 40-55 percent chance of exceeding median rainfall in the sugarcane production areas along the east coast of QLD and northern NSW coast (see Figure 4). This indicates a relatively normal rainfall expectation for the April to June period.

**Figure 4 – Chance of Exceeding Median Rainfall in April to June 2020**



Source: Bureau of Meteorology

There are approximately 4,050 growers in Australia in a deregulated market. With approximately 76 percent of production exported, the domestic sugar price is directly influenced by the world market price - the benchmark of which is the 'Sugar #11 Futures'. Growers have three-year sugarcane 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. From 2017 growers have had the option to choose whether the rights to sell their sugar go to their own local sugar supply mill or QSL. The current structure enables other third-party marketers to also offer their services. Sugarcane growers also have the capacity to 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.

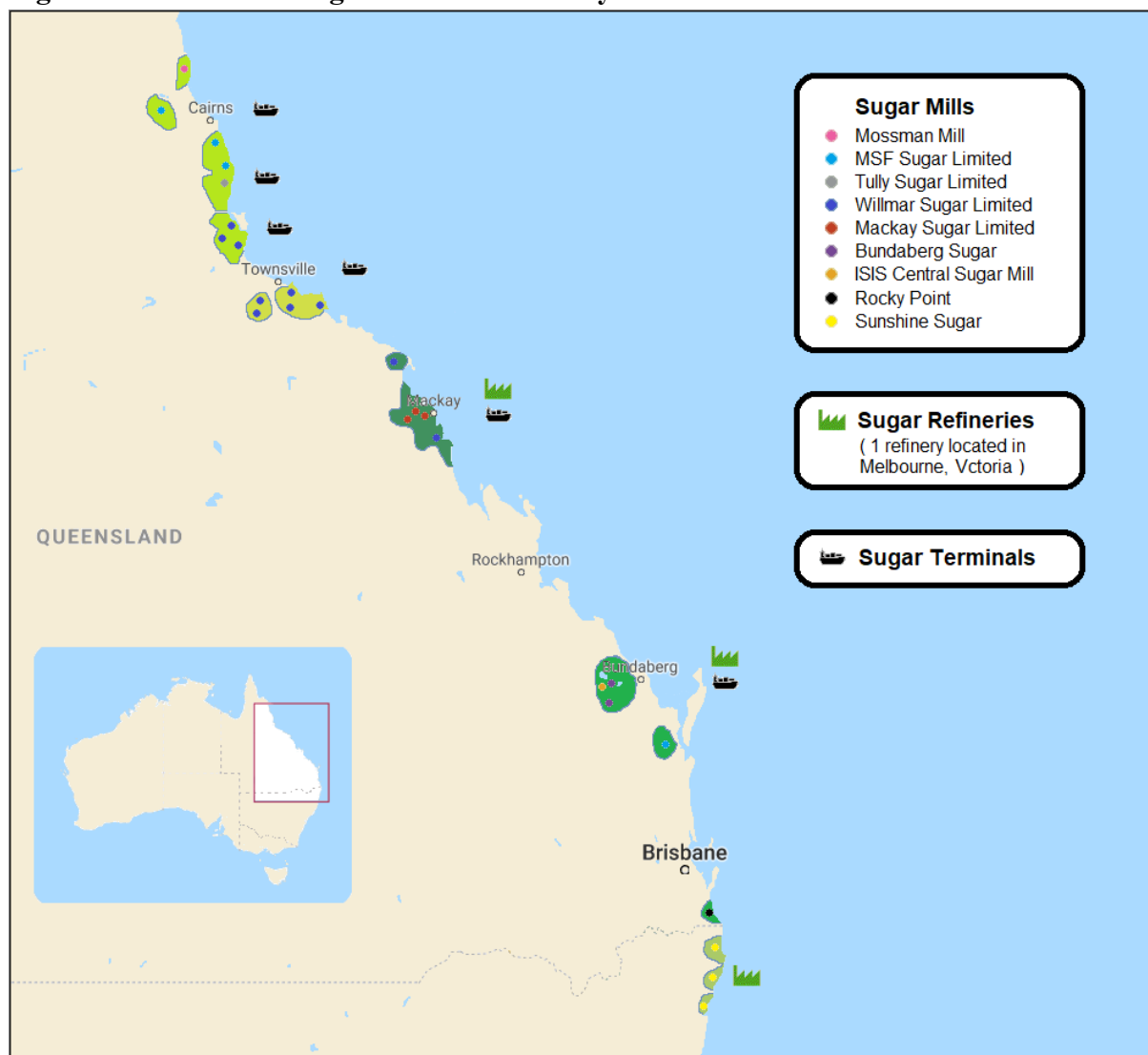
Sugarcane is a perennial tropical C4 plant originating from New Guinea. The crop germinates from billets (approximately a 30cm portion of a sugarcane stalk) planted in rows into a soil bed. The soil beds are raised to minimise waterlogging particularly during the high rainfall wet season periods. After germination plants will typically tiller and form 4-12 stems. The typical growing period between harvest is 12 months however in northern NSW the growing period is from 12 to 24 months and it is varied according to prevailing climatic conditions. At harvest the entire plant is cut just above ground level and the stalks are cut into approximately 30cm lengths 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 the first planted sugarcane is harvested a series of successive crops regrow from the stubble which are referred to as ratoons. After the first harvest, annual production typically declines each successive year. After the first crop harvest farmers typically allow three to four ratoons. Farms would typically have approximately 15 percent of their total sugarcane farming area as fallow in each season, which is planted from April to June. 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 optimising production and achieving a relatively stable production from year to year.

There are a total of 24 sugar mills (shown in Figure 5) processing sugarcane typically from June through to late November. The mills are owned by 9 different entities ranging from public listed companies, public unlisted companies, one private company and one cooperative. The mills process sugarcane typically 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 mill in central QLD also produces ethanol from molasses. Multiple mills have cogeneration plants using bagasse to produce electricity for their own needs and surplus power fed into the local grid. Ash and mill mud are used as a fertiliser by sugarcane producers.

Approximately 76 percent of raw sugar production is delivered and stored at one of six ports on the QLD coast for subsequent export. Sugar is also domestically refined for consumption in Australia and a

relatively small volume of refined sugar for export. There are a total of four sugar refineries owned by three entities. Three of the refineries are located in the growing regions and one is located in Melbourne, Victoria (see Figure 5). There are six ports at which sugar is stored and loaded onto ships for export. These port facilities are all owned by Sugar Terminal Limited of which the major shareholder is QSL who also manage the terminals owned by STL.

**Figure 5 – Australian Sugar Mill and Refinery and Port Terminal Locations**



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

## Industry Issues Impacting on Production

### Reef Regulations

The Queensland State government introduced new regulations on December 1, 2019 aimed at increasing protection measures for the Great Barrier Reef which will have an impact on the sugar industry. The

key focus of the new regulations is the control and management of nitrate and phosphorous discharge into waterways and subsequently the Coral Sea which is home to the Great Barrier Reef.

The industry has in place a voluntary 'Smartcane BMP' certification program which includes a focus on matching nitrate and phosphorous on-farm inputs to crop needs and the application methods and timing of applications in order to minimize their discharge into waterways. At last report there were 521 enterprises (13 percent) with 119,274 ha (30 percent) that were accredited (source: <https://smartcane.com.au>) of a total of approximately 4,050 enterprises and 402,600 ha of sugarcane area (including an estimated 15 percent fallow area) in Australia.

The immediate obligations of the new legislated regulations are:

- No broadcast application of fertilizer (surface application along the cane rows remains legal)
- Taking measures to minimize erosion and sediment run-off
- Ensuring fallow blocks have some form of surface cover

From June 1, 2020 any 'new' cropping activity (land that has not been cropped for three of the past 10 years, including one year in the last five) of greater than five ha will require an environmental authority permit. New cropping land of five ha to 100 ha will need to comply with a new set of standard requirements and areas greater than 100 ha will require a site-based land suitability assessment.

Growers in the north of Queensland from December 1, 2021, and growers in the south of Queensland from December 1, 2022, will be legally obliged to meet minimum practice standards for nutrient management including whole farm N and P budgets.

### Fall Armyworm

Fall Armyworm is native to tropical and subtropical regions of the Americas. Since 2016 it has spread to Africa, Indian subcontinent, China, South East Asia and in a matter of weeks after first being identified in Bamaga, far north QLD in February 2020 has recently been identified in the Burdekin region south of Townsville and in the South QLD region of Bundaberg.

Adult moths can fly up to 200km and they are prolific breeders, able to reproduce several generations per year. A National Management Group has been established and has determined that it is technically not feasible to eradicate fall armyworm.

Fall Armyworm is known to infest sugarcane, however the impact on future production is unclear. Sugar Research Australia reports that along with other industry partners they have worked with the Australian Veterinary Medicines Authority on an emergency use permit for Permethrin to be allowed to be used to control fall armyworm. Permethrin is currently the only pesticide control treatment registered for use against fall armyworm in Australia.



## **Consumption**

Domestic sugar consumption for MY 2020/21 is forecast at 1 MMT, unchanged from the MY 2019/20 estimate. Consumption per capita is expected to gradually decline over the longer term as a result of changing dietary habits. However, this is expected to be offset by a growing Australian population, leaving overall consumption stable.

In mid-August 2019, the Australia and New Zealand Ministerial Forum on Food Regulation released a communique where they "agreed to request that Food Standards Australia New Zealand review nutrition labelling for added sugars, noting that the option to quantify added sugars in the nutrition information panel best met the desired outcome." If the request to change the food labelling standards for sugar is implemented, it may result in a further reduction in per capita consumption of sugar in Australia.

Over recent years the Australian Medical Association in particular has urged the Australian government to introduce a Sugar Tax on soft drinks. The major political parties at this point do not support a Sugar Tax, stating that food labelling laws and voluntary codes of conduct to restrict food marketing to children are adequate. The Australian Beverages council has pledged to reduce drinks companies sugar use by 20 percent by 2025 as a measure to diminish the likelihood of the introduction of a Sugar Tax.

## **Trade**

Raw sugar exports in MY 2020/21 are forecast to increase to 3.4 MMT, from a revised estimate of 3.2 MMT in MY 2019/20. The increase in raw sugar exports directly relates to the forecasted increase in sugar production from 4.285 MMT in MY 2019/20 to 4.5 MMT in MY 2020/21.

Refined sugar exports are similarly forecast to increase in MY 2020/21 to 140,000 MT from a revised estimate of 120,000 MT in MY 2019/20. Refined sugar exports in MY 2017/18 and 2018/19 were at 140,000 MT and declined in MY 2019/20 due to the decrease in sugarcane production in that year. Expectations are that refined sugar export volumes will return to more normal levels in MY 2020/21.

Approximately 76 percent of Australian sugar is exported. Of the sugar exported, raw sugar represents 95 percent with the balance of 5 percent being refined sugar.

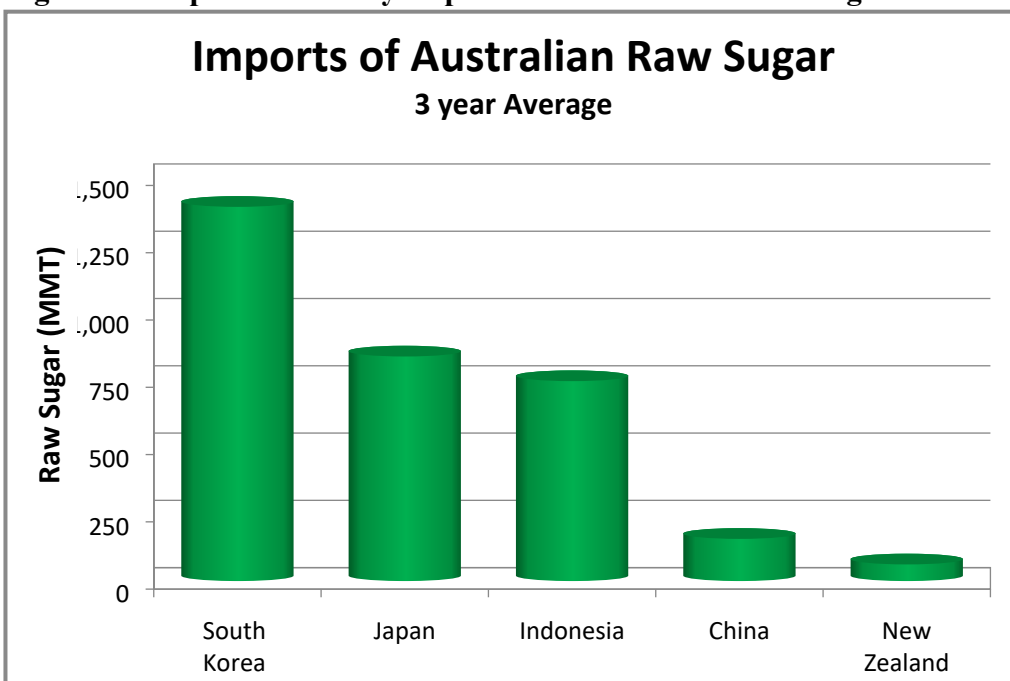
Sugar is Australia's second largest crop export, after wheat. Australia is consistently the world's third largest exporter of sugar after Brazil and Thailand. The top five importers of Australian raw sugar are South Korea, Japan and Indonesia, China and New Zealand as shown in Figure 6. These countries represent 80-90 percent of world imports of Australian raw sugar.

Of refined sugar exports, approximately 85 percent has gone to Singapore over recent years.

The sugar industry cautiously anticipates that there will not be any major impact on Australian sugar exports caused by COVID-19 disruptions to major trading partners.

The Australian sugar industry and Australian Government are concerned about Indian sugar subsidies and assert that they have had a negative impact on Australian producers. On March 15, 2019 Guatemala requested consultations with India in relation to their sugar industry support measures as well as export subsidies. In late March and early April 2019, Thailand, Brazil, Costa Rica, Russian Federation and European Union joined the consultations. At a meeting on August 15, 2019 the WTO established a Dispute Settlement Body (DSB) to hear the complaint against India. The DSB panel was composed on October 28, 2019. The anticipated timeline of the WTO DSB process is unclear at this point.

**Figure 6 – Top Five Country Importers of Australian Raw Sugar**



Source: Trade Data Monitor

Australia imports a relatively small quantity of refined sugar of 15,000 MT which equates to 1.5 percent of domestic consumption. Approximately 80 percent of the annual imports are from Thailand, Malaysia, China and Brazil. In MY 2020/21 import quantities are forecast to remain stable.

### **Stocks**

Due to the close alignment of the start of the sugarcane harvest season (June) with the beginning of the marketing year (July), end of year stocks of sugar are typically low. Exports of raw sugar tend to be elevated from July to December, which is a one-month lag from the sugarcane harvest period of June to November. During the remainder of the year from January to June, export levels are lower and this period is used to clear stocks in preparation for the subsequent commencement of the sugarcane harvest.

**Table 1 – Forecast Australian Sugar Statistics**

Sugar Cane for Centrifugal Market Begin Year Australia	2018/2019		2019/2020		2020/2021	
	Jul 2018		Jul 2019		Jul 2020	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	380	380	375	364	0	370
Production	32500	32500	31000	30000	0	32000
Total Supply	32500	32500	31000	30000	0	32000
Utilization for Sugar	32500	32500	31000	30000	0	32000
Utilizatn for Alcohol	0	0	0	0	0	0
Total Utilization	32500	32500	31000	30000	0	32000

(1000 HA) ,(1000 MT)

Sugar, Centrifugal Market Begin Year Australia	2018/2019		2019/2020		2020/2021	
	Jul 2018		Jul 2019		Jul 2020	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Beginning Stocks	130	130	80	137	0	119
Beet Sugar Production	0	0	0	0	0	0
Cane Sugar Production	4725	4725	4500	4285	0	4500
Total Sugar Production	4725	4725	4500	4285	0	4500
Raw Imports	5	2	5	2	0	2
Refined Imp.(Raw Val)	20	15	20	15	0	15
Total Imports	25	17	25	17	0	17
Total Supply	4880	4872	4605	4439	0	4636
Raw Exports	3600	3600	3300	3200	0	3400
Refined Exp.(Raw Val)	200	135	200	120	0	140
Total Exports	3800	3735	3500	3320	0	3540
Human Dom. Consumption	1000	1000	1000	1000	0	1000
Other Disappearance	0	0	0	0	0	0
Total Use	1000	1000	1000	1000	0	1000
Ending Stocks	80	137	105	119	0	96
Total Distribution	4880	4872	4605	4439	0	4636

(1000 MT)

**Attachments:**

No Attachments