

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2020

22 June 2021

### SUGAR CANE CROP 2021

**Status: End April 2021**

#### 1. CLIMATE

##### 1.1 Rainfall (Tables 1a, 1b, Figure 1)

Rainfall recorded over the cane areas during the month of April 2021 was well above normal across all sectors, with an island average of 527 mm, representing 239% of the long-term mean (LTM) of 220 mm. Sector-wise rainfall amounted to 271 mm in the North, 558 mm in the East, 710 mm in the South, 251 mm in the West and 668 mm in the Centre. These amounts represented 196%, 199%, 278%, 299% and 274% of the LTM of these sectors, respectively.

Rainfall for the period October 2020 to April 2021 cumulated to 807 mm in the North, 1705 mm in the East, 1758 mm in the South, 500 mm in the West, 1868 mm in the Centre and 1433 mm for the island. Cumulative rainfall for the period represented 84%, 95%, 102%, 64%, 108% and 96% of the respective LTM, which stands at 956 mm, 1786 mm, 1729 mm, 780 mm, 1725 mm and 1489 mm for sectors North, East, South, West and Centre, respectively.

The month of April 2021 was the 5<sup>th</sup> wettest on records since 1960 and the heavy downpours occurred during the second half of the month. These contributed to reduce the deficit recorded since the beginning of the crop cycle. Rainfall during the month of April 2021 was well distributed over the island.

**Table 1a. Rainfall (mm) for the month of April for crops 2020, 2021 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2020</b>	<b>99</b> (72)	<b>272</b> (97)	<b>223</b> (87)	<b>32</b> (38)	<b>217</b> (89)	<b>192</b> (87)
<b>2021</b>	<b>271</b> (196)*	<b>558</b> (199)	<b>710</b> (278)	<b>251</b> (299)	<b>668</b> (274)	<b>527</b> (239)
<b>LTM</b>	138	280	255	84	244	220

\* figures in brackets are % of LTM (1981-2010)

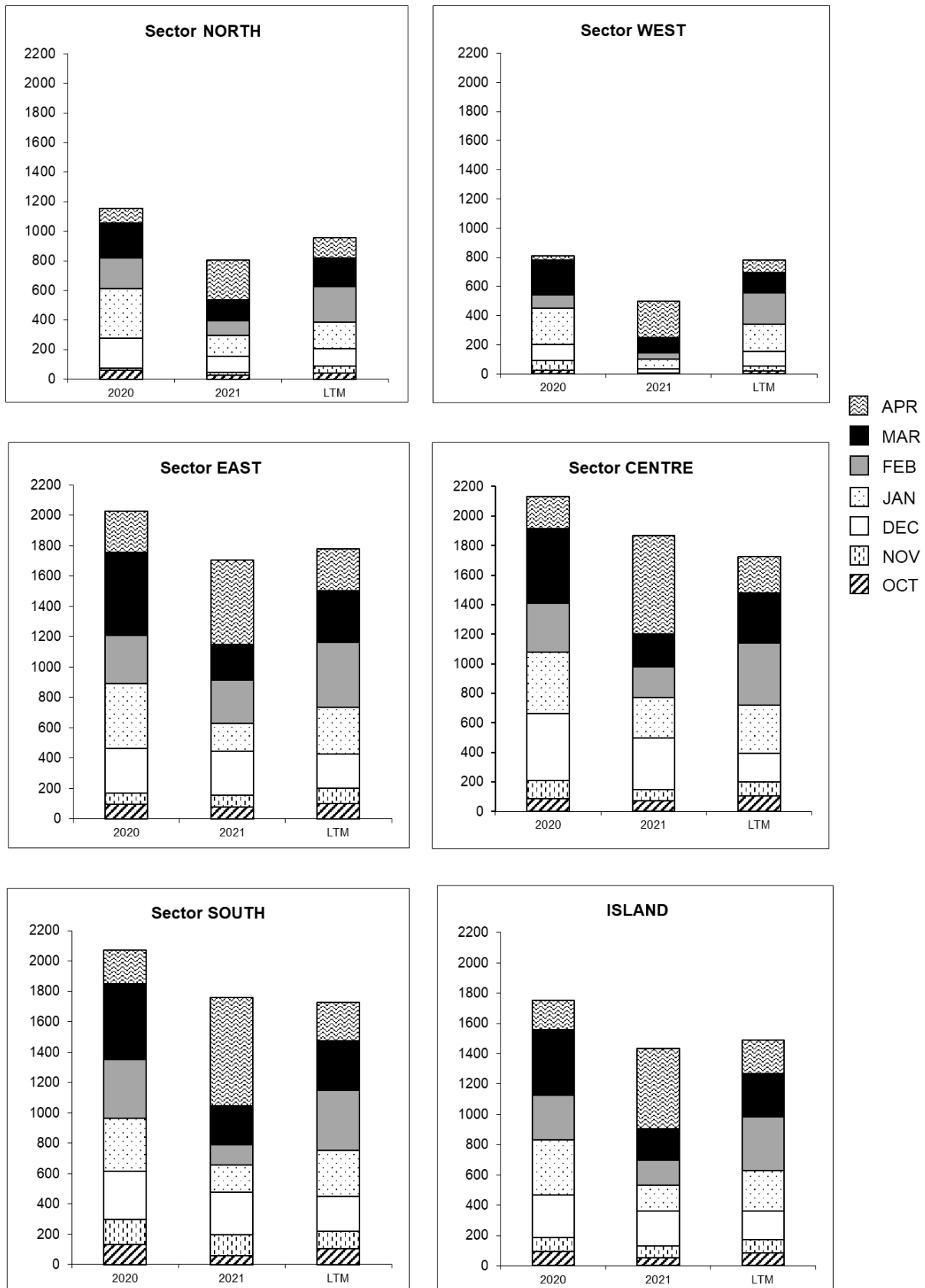
**Table 1b. Cumulative rainfall (mm) from October 2020 to April 2021 for crop 2021 compared to that of crop 2020 and the LTM**

	North	East	South	West	Centre	Island
<b>2020</b>	1155 (121)	2026 (113)	2073 (120)	812 (104)	2131 (124)	1752 (118)
<b>2021</b>	<b>807</b> (84)*	<b>1705</b> (95)	<b>1758</b> (102)	<b>500</b> (64)	<b>1868</b> (108)	<b>1433</b> (96)
<b>LTM</b>	956	1786	1729	780	1725	1489

\* figures in brackets are % of LTM

[Source: Mauritius Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2020 to April 2021 for the 2021 crop compared to the corresponding period of the 2020 crop and to the long term mean (LTM).**



## 1.2 Air Temperature and sunshine duration (Table 2)

On account of the confinement period associated with the COVID 19 pandemic, air temperature and sunshine duration could only be recorded at Réduit and Union Park in April 2021 instead of four stations (Table 2).

**Table 2. Air temperature and sunshine duration recorded on two MSIRI agro-meteorological stations in April 2021**

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	April 2021	DevN*	April 2021	DevN	April 2021	% Normal
Réduit	26.8	0.0	21.5	+1.2	134	64
Union Park	26.9	+1.0	21.4	+1.7	116	76

\* Deviation from the Normal (1981-2010)

Mean monthly maximum temperature during April 2021 was similar to the normal at Réduit, but exceeded the normal by 1.0 °C at Union Park. Mean minimum temperature exceeded the normal at both Réduit and Union Park by more than 1.0 °C. Sunshine hours recorded in April 2021 were well below the normal, amounting to 64% and 76% of the normal at Réduit and Union Park, respectively. Below normal sunshine duration is not favourable for optimum crop growth.

## 2.0 STALK HEIGHT

Cane growth was assessed during the last week of April 2021 in the 48 sites representative of the five sugar cane sectors of the island. These sites cover the various agro-climatic zones, varieties under cultivation and stage of development of the crop. The measurements were compared to those of the corresponding period in April 2020 and to the normal representing the mean of the five best cane yielding crops during the period 2011 to 2020.

### 2.1 Stalk elongation (Table 3a)

Stalk growth during the month of April 2021 was higher than that recorded during the corresponding period in 2020 except in sectors East and Centre.

**Table 3a. Stalk elongation during the month of April 2021.**

Sectors	Stalk elongation (cm) during April			April 2021 as % of	
	2021	2020	Normal	2020	Normal
North	35.0	26.8	33.0	130.6	105.9
East	30.2	33.1	33.2	91.2	90.9
South	36.8	29.9	34.6	123.1	106.5
West	38.7	31.6	33.9	122.5	114.1
Centre	26.4	29.7	29.0	88.9	90.9
<b>Island</b>	<b>34.0</b>	<b>30.4</b>	<b>33.8</b>	<b>111.7</b>	<b>100.4</b>

Stalk elongation during April 2021 was 35.0 cm in the North, 30.2 cm in the East, 36.8 cm in the South, 38.7 cm in the West and 26.4 cm in the Centre. For the same period, growth exceeded the normal in the North, South and West by 2.0 cm, 2.2 cm and 4.8 cm respectively. However, it lagged behind the normal by 3.0 cm in the East and 2.6 cm in the Centre. The island stalk elongation of 34.0 cm in April 2021 was comparable to the normal, but exceeded that of the corresponding period in 2020 by 3.6 cm (11.7%).

## 2.2 Cumulative Elongation (Table 3b)

Growth from end-December 2020 to end-April 2021 cumulated to 145.6 cm in the North, 165.2 cm in the East, 164.6 cm in the South, 138.2 cm in the West and 139.8 cm in the Centre. These cumulative growths, except for the East sector, were lagging behind those of 2020. For the same period, growth was comparable to the normal in the East but was lagging behind in the other sectors. Island-wise, the cumulative elongation of 155.9 cm was below those of the 2020 crop (162.1 cm) by 3.9% and the normal (163.2 cm) by 4.5%.

**Table 3b. Cumulative elongation at end April 2021.**

Sectors	Cumulative elongation (cm) at end- April			End-April 2021 as % of	
	2021	2020	Normal	2020	Normal
North	145.6	162.4	167.1	89.7	87.1
East	165.2	166.9	165.9	99.0	99.6
South	164.6	166.2	165.6	99.0	99.4
West	138.2	147.3	160.6	93.8	86.1
Centre	139.8	145.5	141.9	96.1	98.5
<b>Island</b>	<b>155.9</b>	<b>162.1</b>	<b>163.2</b>	<b>96.1</b>	<b>95.5</b>

## 2.3 Total stalk height (Table 3c and Figure 2)

At end-April 2021 total stalk height recorded stood at 164.6 cm in the North, 218.3 cm in the East, 206.5 cm in the South, 166.7 cm in the West and 181.0 cm in the Centre, with an island average of 195.2 cm. Compared to the corresponding period in 2020, total stalk height in April 2021 was inferior by 37.6 cm in the North, 20.5 cm in the West and 8.3 cm in the Centre but was higher in the East and South by 11.0 cm and 7.0 cm respectively. Total stalk height in April 2021, compared to the normal, was higher by 5.0 cm in the East and 3.2 cm in the South but was below normal in the other sectors by 27.4 cm in the North, 28.5 cm in the West and 3.9 cm in the Centre.

At island level, the total stalk height of 195.2 cm at end of April 2021 was lower than those of the corresponding period in 2020 by 5.3 cm (2.6%) and the normal by 6.4 cm (3.2 %).

**Table 3c. Total stalk height at end April 2021.**

Sectors	Stalk height (cm) at end-April			End-April 2021 as % of	
	2021	2020	Normal	2020	Normal
North	164.6	202.2	192.0	81.4	85.7
East	218.3	207.3	213.3	105.3	102.3
South	206.5	199.5	203.3	103.5	101.6
West	166.7	187.2	195.2	89.0	85.4
Centre	181.0	189.3	184.9	95.6	97.9
<b>Island</b>	<b>195.2</b>	<b>200.5</b>	<b>201.6</b>	<b>97.4</b>	<b>96.8</b>

### 3. CROP 2021

The month of April 2021 was characterised by torrential rainfall events occurring during the last week of the month that led to above normal rainfall in all sectors. These heavy downpours contributed to reduce the water deficit recorded since the beginning of the crop cycle. However, solar radiation recorded for the month was below normal. Stalk elongation recorded during April 2021 over the island was in general comparable to the normal. The deficit in stalk height with respect to the normal in sectors North and West which was 18% and 20% respectively in March 2021 regressed to 15%. Overall, total stalk height at island level in April 2021 was 97% of the normal.

Cane analysis is scheduled for the last week of May 2021 and the results will provide an indication of the status of sucrose accumulation and that of the initiation of the ripening process.

**Figure 2. Stalk height at end April 2021**

