

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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### SUGAR CANE CROP 2020

**Status: End March 2020**

#### 1. CLIMATE

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

The island's average rainfall recorded at mid-March 2020 was 310 mm over the sugar cane areas and it represented 197% of the long-term mean (LTM). Rainfall at mid-March exceeded the LTM in all sectors with 139 mm (140%) in the North, 435 mm (240%) in the East, 338 mm (177%) in the South, 205 mm (250%) in the West and 364 mm (199%) in the Centre.

Cumulative rainfall during the period October 2019 to mid-March 2020 amounted to 957 mm in the North, 1643 mm in the East, 1686 mm in the South, 746 mm in the West and 1772 mm in the Centre. These cumulated rainfalls represented 132%, 122%, 115%, 121% and 137% of the respective long-term mean. The island average of 1437 mm for this period represented 122% of the long-term mean (1179 mm).

**Table 1a. Rainfall (mm) for mid-March for crops 2019, 2020 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2019</b>	66 (67)	64 (35)	44 (23)	26 (32)	62 (34)	55 (35)
<b>2020</b>	<b>139</b> (140)*	<b>435</b> (240)	<b>338</b> (177)	<b>205</b> (250)	<b>364</b> (199)	<b>310</b> (197)
<b>LTM</b>	99	181	191	82	183	158

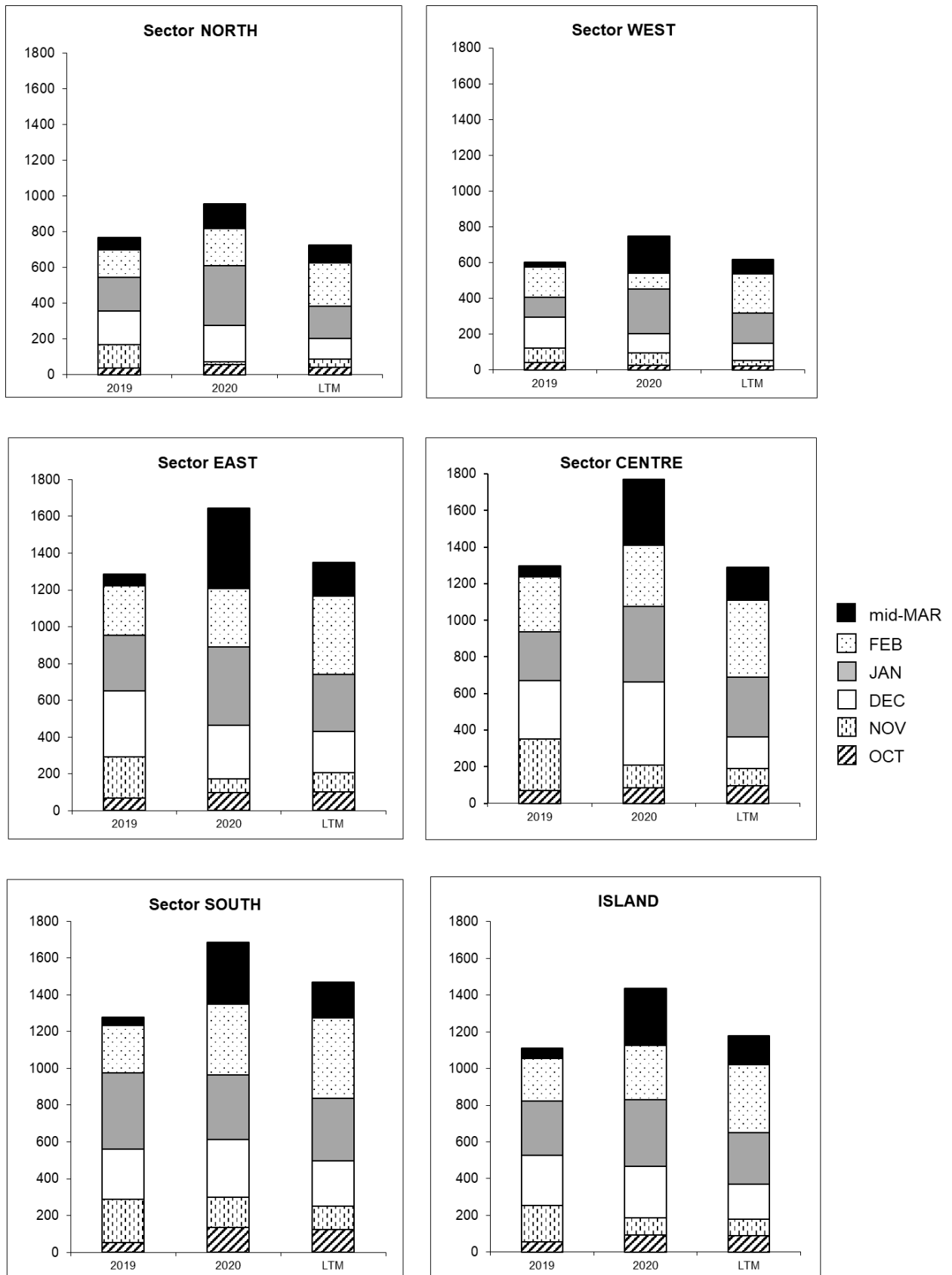
\* figures in brackets are % of LTM (1981-10)

**Table 1b. Cumulative rainfall (mm) from October 2019 to mid-March 2020 for crop 2020 compared to that of crop 2019 and the LTM**

	North	East	South	West	Centre	Island
<b>2019</b>	767 (106)	1286 (95)	1278 (87)	601 (97)	1299 (101)	1109 (94)
<b>2020</b>	<b>957</b> (132)*	<b>1643</b> (122)	<b>1686</b> (115)	<b>746</b> (121)	<b>1772</b> (137)	<b>1437</b> (122)
<b>LTM</b>	727	1349	1467	618	1291	1179

\* figures in brackets are % of LTM [Source: provisional data from Mauritius Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2019 to mid-March 2020 for the 2020 crop compared to the corresponding period of the 2019 crop and to the long term mean (LTM).**



## 1.2 Air Temperature and sunshine duration for March 2020 (Table 2)

From the four MSIRI agro-meteorological stations, weather data were recorded at only two stations namely at Réduit and Union Park, on account of the lockdown that is related to the COVID-19 pandemic, and are given in Table 2.

**Table 2. Air temperature and sunshine duration recorded on MSIRI agro-meteorological stations in March 2020**

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Mar 2020	DevN*	Mar 2020	DevN	Mar 2020	% Normal
<b>Réduit</b>	28.1	+0.3	21.7	+0.4	171	75
<b>Union Park</b>	27.6	+0.7	21.6	+1.0	116	68

\* Deviation from the Normal (1981-2010)

Mean monthly maximum temperature during March 2020 exceeded the normal by 0.3° at Réduit and 0.7° at Union Park. Similarly, mean minimum temperature was above normal at both stations. However, the sky was overcast in March 2020 at both stations with sunshine hours recorded amounting to 75% and 68% of the normal at Réduit and Union Park, respectively.

## 2. STALK HEIGHT

Stalk height were measured during mid-March 2020 at 48 sites in the five sugar cane sectors of the island. These sites are representative of the various agro-climatic zones, varieties and crop categories. The measurements were compared to mid-March 2019 and to the normal referred as the mean of the five best cane yielding crops during the period 2010 to 2019.

### 2.1 Stalk elongation (Table 3a)

Stalk elongation during the first half of March 2020 was far higher than those of the same period in 2019 and the normal in all sectors.

**Table 3a. Stalk elongation during the first half of March 2020**

Sectors	Stalk elongation (cm) during mid-March			Mid-March 2020 as % of	
	2020	2019	Normal	2019	Normal
North	32.0	15.7	22.5	203.8	142.3
East	32.0	18.7	22.2	171.1	144.3
South	30.7	19.2	22.4	159.9	136.8
West	24.1	15.7	22.2	153.5	108.5
Centre	24.5	15.2	23.3	161.2	105.3
<b>Island</b>	<b>30.2</b>	<b>17.7</b>	<b>22.1</b>	<b>171.0</b>	<b>136.7</b>

Growth during the first half of March 2020 amounted to 32.0 cm in both the North and East, 30.7 cm in the South, 24.1 cm in the West and 24.5 cm in the Centre. For the same period, growth exceeded the normal by 9.5 cm in the North, 9.8 cm in the East, 8.3 cm in the South, 1.9 cm in the West and 1.2 cm in the Centre. The island stalk elongation of 30.2 cm at mid-March 2020 was superior to those of the corresponding period in 2019 by 12.5 cm (71%) and the normal by 8.1 cm (36.7%).

## 2.2 Cumulative Elongation (Table 3b)

Stalk growth from end-December 2019 to mid-March 2020 cumulated to 116.7 cm in the North, 119.4 cm in the East, 118.2 cm in the South, 97.1 cm in the West and 95.7 cm in the Centre. These cumulative growths compared to the same period last year were lower by 5.2 cm North, 3.7 cm in the East and 12.6 cm in the West whereas in the South and Centre it was higher by 5.6 cm and 9.8 cm, respectively. For the same period, cumulative growth exceeded the normal in the North by 13.8 cm, the East by 9.1 cm, the South by 10.3 cm and the Centre by 5.6 cm but lagged behind the normal in the West by 17.4 cm. Island-wise the cumulative elongation of 114.4 cm in the first half of March 2020 was slightly lower than that of the 2019 crop (115.8 cm) by 1.2% but was higher than that of the normal (106.3 cm) by 7.6%.

**Table 3b. Cumulative elongation at mid-March 2020.**

Sectors	Cumulative elongation (cm) as at Mid- March			Mid-March 2020 as % of	
	2020	2019	Normal	2019	Normal
North	116.7	121.9	102.9	95.7	113.4
East	119.4	123.1	110.3	97.0	108.2
South	118.2	112.6	107.9	105.0	109.5
West	97.1	109.7	114.5	88.5	84.8
Centre	95.7	85.9	90.1	111.4	106.2
<b>Island</b>	<b>114.4</b>	<b>115.8</b>	<b>106.3</b>	<b>98.8</b>	<b>107.6</b>

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

Total stalk height at mid-March 2020 was 156.5 cm in the North, 159.8 cm in the East, 151.5 cm in the South, 137.0 cm in the West and 139.5 in the Centre. Compared to mid-March 2019, stalk height to-date was comparable in the North, higher in the South by 10.0 cm and the Centre by 18.0 cm but was lagging behind in the other sectors by 3.7 cm in the East and 14.8 cm in the West. Total stalk height at mid-March 2020 was above normal by 28.6 cm in the North, 2.1 cm in the East, 5.6 cm in the South and 6.6 cm in the Centre but lagged behind in the West by 14.9 cm.

At island level, the total stalk height of 152.8 cm at mid-March 2020 was comparable to that of the corresponding period in 2019 but higher than that of the normal by 7.2 cm (4.9%).

**Table 3c. Stalk height at mid-March 2020.**

Sectors	Stalk height (cm) at mid-March			Mid-March 2020 as % of	
	2020	2019	Normal	2019	Normal
North	156.5	157.5	127.9	99.4	122.4
East	159.8	163.5	157.7	97.7	101.3
South	151.5	141.5	145.9	107.1	103.9
West	137.0	151.8	151.9	90.3	90.2
Centre	139.5	121.5	132.9	114.8	105.0
<b>Island</b>	<b>152.8</b>	<b>151.6</b>	<b>145.6</b>	<b>100.8</b>	<b>104.9</b>

### 3. CROP 2020

Apart from the below normal solar radiation, weather during the first half of March 2020 has been on the whole quite favourable, especially the good rainfall regime and high air temperature, to cane growth as reflected by the above normal rates of elongation recorded in all sugarcane sectors. Thus, total cane height at island level, except for the West sector, has exceeded the normal, with an advantage of 4.9% (7.2 cm). From the consensus forecast for Mauritius, published on the website of the Mauritius Meteorological Services, March 2020 had above normal rainfall while rainfall amount for the months of April and May 2020 is expected to be slightly above normal while day time maximum temperature will be slightly above normal at most places. These favourable forecast conditions imply that vigorous growth may be anticipated and the 2020 crop can be expected to be a normal one in terms of stalk height and cane productivity, assuming that recommended cultural practices and fertiliser application rates and timing are optimally followed.

**Figure 2. Stalk height at mid- March 2020**

