

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2019

10 April 2019

### SUGAR CANE CROP 2019

Status: End March 2019

#### 1. CLIMATE

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

The island's average rainfall for the month of March 2019 was 153 mm over the sugar cane areas representing only 59% of the normal, long-term mean (LTM), (261 mm). In all sectors, rainfall recorded was below the LTM with 123 mm in the North, 192 mm in the East, 156 mm in the South, 43 mm in the West and 194 mm in the Centre. These amounts represented 69%, 71%, 50%, 31% and 55% of the respective long-term mean of the sector.

Rainfall for the period October 2018 to March 2019 cumulated to 1207 mm, representing 97% of the long-term mean for the island. During the same period, 824 mm were recorded in the North, 1414 mm in the East, 1390 mm in the South, 618 mm in the West and 1431 mm in the Centre. These values represented 102%, 98%, 95%, 89% and 96% of the respective long-term means.

All regions over the island had deficient rainfall during March 2019.

**Table 1a. Rainfall (mm) for the month of March for crops 2018, 2019 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2018</b>	231 (129)	426 (157)	309 (99)	169 (122)	453 (128)	325 (125)
<b>2019</b>	<b>123</b> (69)*	<b>192</b> (71)	<b>156</b> (50)	<b>43</b> (31)	<b>194</b> (55)	<b>153</b> (59)
<b>LTM</b>	179	272	312	139	354	261

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

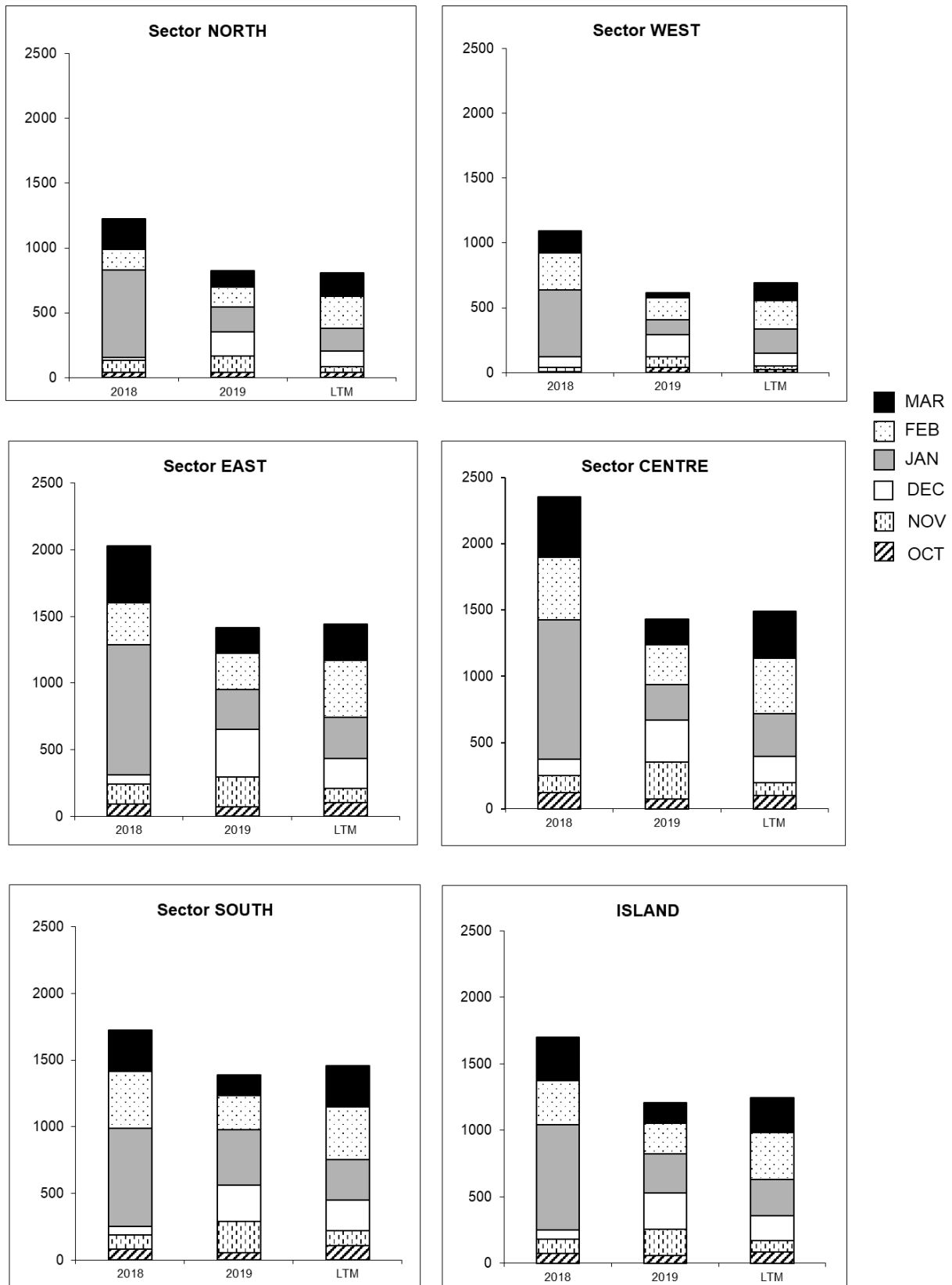
**Table 1b. Cumulative rainfall (mm) from October 2018 to March 2019 for crop 2019 compared to that of crop 2018 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2018</b>	1223 (152)	2027 (141)	1724 (118)	1091 (157)	2352 (158)	1698 (136)
<b>2019</b>	<b>824</b> (102)*	<b>1414</b> (98)	<b>1390</b> (95)	<b>618</b> (89)	<b>1431</b> (96)	<b>1207</b> (97)
<b>LTM</b>	807	1440	1459	695	1492	1245

\* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2018 to March 2019 for the 2019 crop compared to the same period of the 2018 crop and to the long-term mean (LTM).**



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

Air temperature and sunshine duration recorded during March 2019 at the four MSIRI agro-meteorological stations are summarized below.

**Table 2. Air temperature and sunshine duration recorded on MSIRI agro-meteorological stations in March 2019**

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	March 2019	DevN*	March 2019	DevN	March 2019	% Normal
<b>Ferret</b>	32.0	+1.4	23.0	+1.0	281	119
<b>Réduit</b>	29.4	+1.6	21.3	0.0	270	118
<b>Belle Rive</b>	28.9	+1.6	21.0	+1.5	235	123
<b>Union Park</b>	29.5	+2.6	21.8	+1.2	238	140

\* Deviation from the Normal (1981-2010)

The mean monthly maximum temperature during March 2019 exceeded the normal at all stations by more than 1.4°C. The mean monthly minimum temperature was above the normal at all stations except at Réduit where it was equal to the normal. More than 95% of days in March 2019 exceeded the normal maximum temperature at all four stations.

Sunshine hours during March 2019 were well above normal at all stations. The recorded bright sunshine, as a percentage of the normal was 119% at Ferret, 118% at Réduit, 123% at Belle Rive and 140% at Union Park. The above normal air temperature and solar radiation recorded during March 2019 were conducive to crop growth provided water was non-limiting.

## 2. STALK HEIGHT

During the last week of March 2019, stalk height was measured at 46 sites in the five sugar cane sectors of the island. These selected sites are representative of the various agro-climatic zones, varieties and crop categories. Data collected are compared with those of the corresponding period in March 2018 and to the mean of the five best cane yielding crops of the period 2009 to 2018 in each sector (referred to as normal).

### 2.1 Stalk elongation (Table 3a)

Stalk growth during the month of March 2019 was inferior to that recorded during the corresponding period in 2018 except in sector West. Elongation amounted to 36.7 cm in the North, 36.2 cm in the East, 41.9 cm in the South, 34.1 cm in the West and 30.0 cm in the Centre. The elongation rates of March 2019 were also below the normal in all sectors, the difference being 15.7 cm in the North, 11.5 cm in the East, 8.0 cm in the South, 11.1 cm in the West and 18.1 cm in the Centre. The average elongation of 37.4 cm for the island represented 92.2% of that recorded in March 2018 (40.6 cm) and 76.6% of the normal (48.8 cm).

**Table 3a. Stalk elongation during the month of March 2019**

Sectors	Stalk elongation (cm) during March			March 2019 as % of	
	2019	2018	Normal	2018	Normal
North	36.7	43.4	52.4	84.6	70.1
East	36.2	37.5	47.7	96.5	76.0
South	41.9	46.0	49.9	91.1	83.9
West	34.1	31.8	45.2	107.2	75.4
Centre	30.0	33.3	48.1	90.1	62.3
<b>Island</b>	<b>37.4</b>	<b>40.6</b>	<b>48.8</b>	<b>92.2</b>	<b>76.6</b>

## 2.2 Cumulative Elongation (Table 3b)

Cumulative stalk growth from end-December 2018 to end-March 2019 reached 142.9 cm in the North, 140.6 cm in the East, 135.3 cm in the South, 128.1 cm in the West and 100.7 cm in the Centre. These cumulative growths compared to the same period last year were higher in all sectors. For the same period, cumulative growth was comparable to the normal in the South, higher than normal in the North (+16.0 cm) and East (+10.5 cm), but lagged behind in the West (-7.3 cm) and Centre (-14.4 cm). Island-wise the cumulative elongation of 135.5 cm in March 2019 was higher than those of the 2018 crop (128.2 cm) by 5.7% and the normal (129.6 cm) by 4.6%.

**Table 3b. Cumulative elongation at end-March 2019.**

Sectors	Cumulative elongation (cm) at end-March			End-March 2019 as a % of	
	2019	2018	Normal	2018	Normal
North	142.9	130.4	126.9	109.6	112.6
East	140.6	127.0	130.1	110.7	108.1
South	135.3	131.0	135.0	103.3	100.3
West	128.1	130.8	135.4	97.9	94.6
Centre	100.7	108.9	115.1	92.5	87.5
<b>Island</b>	<b>135.5</b>	<b>128.2</b>	<b>129.6</b>	<b>105.7</b>	<b>104.6</b>

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

Total stalk height at end March 2019 was 178.5 cm in the North, 181.0 cm in the East, 164.2 cm in the South, 170.2 cm in the West and 136.3 cm in the Centre giving an island average of 171.3 cm. Compared to the corresponding period in 2018, stalk height to-date was comparable in the East, higher by 29.1 cm in the North and 10.2 cm in the South but lagged behind in sectors West and Centre by 2.6 cm and 16.2 cm, respectively. Total stalk height at end-March 2019 exceeded the normal by 26.9 cm in the North and 2.3 cm in the East. In the other sectors it lagged behind the normal by 15.1 cm in the South, 2.5 cm in the West and 22.3 cm in the Centre.

At island level, the total stalk height of 171.3 cm at end of March 2019 was comparable to the normal but higher than the corresponding period in 2018 by 8.2 cm (5.0 %).

**Table 3c. Total stalk height at end-March.**

Sectors	Stalk height (cm) at end-March			End-March 2019 as % of	
	2019	2018	Normal	2018	Normal
North	178.5	149.4	151.6	119.5	117.7
East	181.0	180.7	178.7	100.2	101.3
South	164.2	154.0	179.3	106.6	91.6
West	170.2	172.8	172.7	98.5	98.6
Centre	136.3	152.5	158.6	89.4	85.9
<b>Island</b>	<b>171.3</b>	<b>163.1</b>	<b>171.2</b>	<b>105.0</b>	<b>100.0</b>

## 3. CROP 2019

Weather in March 2019 was characterised by below normal rainfall in all sectors of the island where the crop suffered mild stress conditions especially in the low-lying areas of rainfed fields. Although solar radiation and temperature recorded on MSIRI stations during the month were above normal, the dry weather conditions affected crop growth. This is reflected in the stalk elongation rate during March 2019 lagging behind the normal and that of March 2018, except in sector West. Total stalk height in sectors South, West and Centre is still inferior to the normal with a deficit ranging from 2.5 cm in the West to 22.3 cm in the Centre. However, total stalk height over the island at end of March 2019 is comparable to the normal and slightly better than that at the same period last year. The heavy downpours recorded during the first week of April 2019 has replenished the soil moisture reserve. Thus, provided favourable climatic conditions prevail, vigorous growth may be anticipated which may well enable full recovery in terms of total stalk height compared to the normal in the affected sectors.

**Figure 2. Stalk height at end-March 2019**

