

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2020

17 February 2020

### SUGAR CANE CROP 2020

**Status: End January 2020**

#### 1. CLIMATE

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

Rainfall recorded over the sugar cane areas during January 2020 was above normal with an island average of 364 mm, representing 130% of the long-term mean (LTM) of 279 mm. Above normal rainfall was also recorded in all sectors with 334 mm in the North, 423 mm in the East, 350 mm in the South, 249 mm in the West and 414 mm in the Centre.

Cumulative rainfall for the period October 2019 to January 2020 for crop 2020 reached 612 mm in the North, 889 mm in the East, 965 mm in the South, 450 mm in the West and 1076 mm in the Centre. These cumulated rainfalls represented 160%, 120%, 115%, 142% and 156% of the respective long-term mean. The island average of 831 mm for this period represented 128% of the LTM (651 mm).

Most of the rainfall occurred during the first and the last week of January 2020 coinciding with the passage of moderate tropical storm *Diane*.

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

	North	East	South	West	Centre	Island
<b>2019</b>	188 (106)	301 (97)	417 (123)	113 (66)	265 (82)	294 (105)
<b>2020</b>	<b>334</b> (188)*	<b>423</b> (136)	<b>350</b> (103)	<b>249</b> (146)	<b>414</b> (128)	<b>364</b> (130)
<b>LTM</b>	178	310	339	171	324	279

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

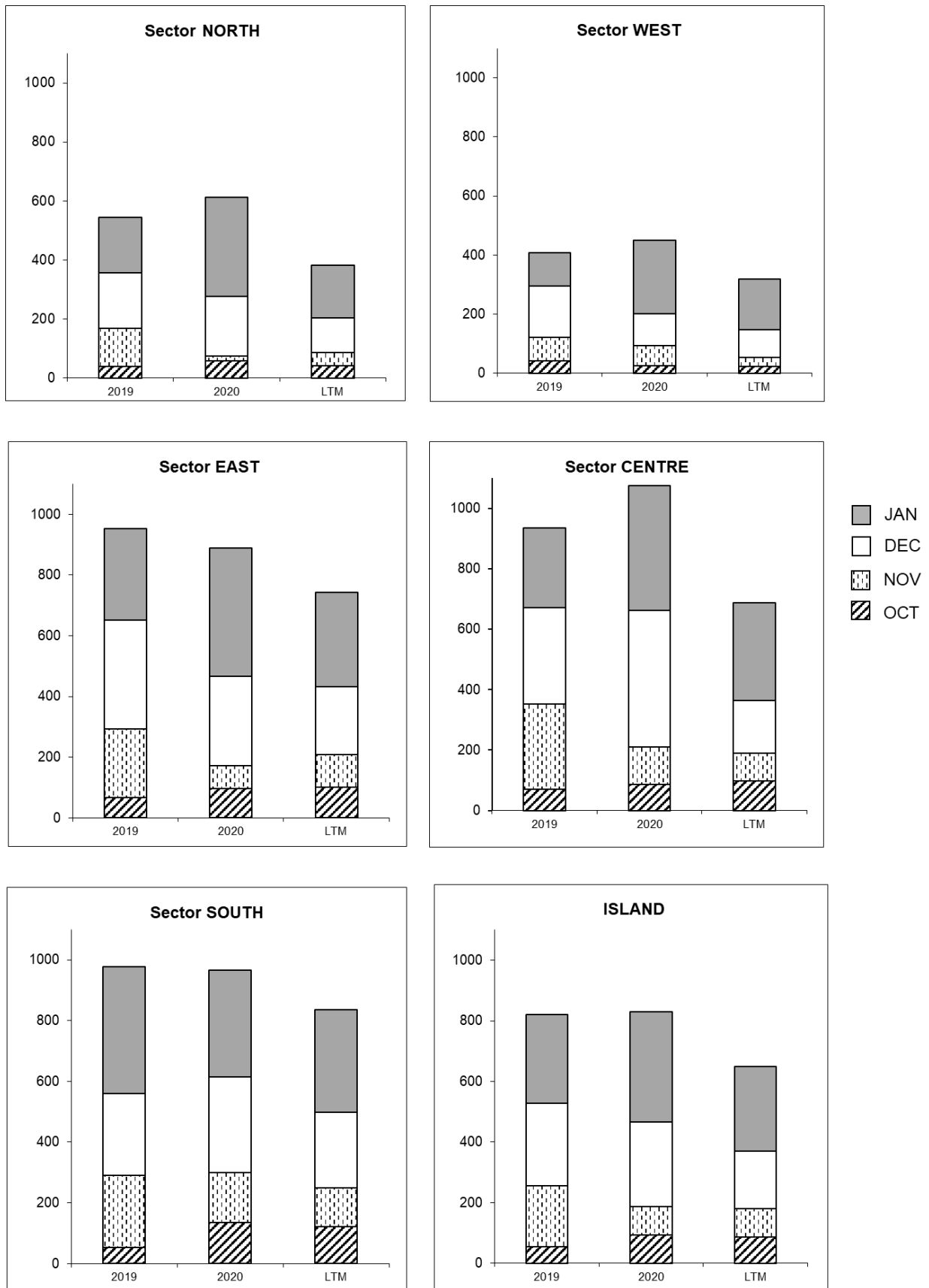
**Table 1b. Cumulative rainfall (mm) from October 2019 to January 2020 for crop 2020 compared to that of crop 2019 and the LTM**

	North	East	South	West	Centre	Island
<b>2019</b>	544 (142)	953 (128)	977 (117)	407 (128)	936 (136)	821 (126)
<b>2020</b>	<b>612</b> (160)*	<b>889</b> (120)	<b>965</b> (115)	<b>450</b> (142)	<b>1076</b> (156)	<b>831</b> (128)
<b>LTM</b>	383	742	837	318	688	651

\* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

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



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

Data on maximum and minimum temperatures together with sunshine duration recorded in January 2020 at the four MSIRI agro-meteorological stations are given below.

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

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Jan 2020	DevN*	Jan 2020	DevN	Jan 2020	% Normal
<b>Ferret</b>	30.4	-0.8	22.5	+0.3	171	70
<b>Réduit</b>	27.7	-0.7	21.7	+0.1	150	64
<b>Belle Rive</b>	27.4	-0.1	20.8	+1.2	128	65
<b>Union Park</b>	28.2	+0.7	21.7	+1.0	126	68

\* Deviation from the Normal (1981-2010)

The maximum temperature recorded during January 2020 was comparable to the normal at Belle Rive, above normal at Union Park by 0.7°C but was lagging behind the normal at the other two stations. Minimum temperature was comparable at Réduit but exceeded the normal at the other stations. The sky was overcast at all stations in January 2020 and recorded bright sunshine, as a percentage of the normal, was 70% at Ferret, 64% at Réduit, 65% at Belle Rive and 68 % at Union Park.

## 2. CROP 2019 (Table 3a and 3b)

Harvest of Crop 2019 ended during the second week of January 2020 and 31 103 ha of miller-planters' land were harvested.

Cane productivity for the island for crop 2019 was 81.0 TCH and exceeded that recorded in 2018 (70.4 TCH) by 10.6 TCH (15.1 %). All sectors had higher cane productivity compared to the productivity obtained at the end of harvest in 2018. The difference in cane productivity ranged from 8.2 TCH in the North to 11.7 TCH in the South.

**Table 3a. Cane productivity (TCH) for the 2019 crop compared to final harvest for 2018 crop**

Sectors	North	East	South	West	Centre	Island
<b>2018</b>	72.4	67.7	72.6	80.2	52.1	<b>70.4</b>
<b>2019</b>	80.6	79.2	84.3	89.4	62.3	<b>81.0</b>

The recorded island extraction rate for crop 2019 was 9.74% and was lower than that of 2018 (10.26%) by 0.52°. Sector-wise, the extraction rate recorded was 10.34% in the North, 9.47% in the East-Centre, 9.56% in the South and 9.87% in the West. These figures were inferior to those obtained in 2018.

**Table 3b. Extraction rate (%) and sugar productivity (TSH) for the 2019 crop compared to final harvest for 2018 crop**

Sector	Extraction rate (%)		Sugar Productivity (TSH)	
	2018	2019	2018	2019
North	10.71	10.34	7.75	8.33
East-Centre	9.97	9.47	6.48	7.21
South	10.21	9.56	7.41	8.06
West	10.38	9.87	8.33	8.83
<b>Island</b>	<b>10.26</b>	<b>9.74</b>	<b>7.22</b>	<b>7.89</b>

The sugar productivity of 7.89 TSH recorded over the island for crop 2019 was higher than that of 2018 (7.22 TSH) by 0.67 tonne (9.3%). Likewise, sugar productivity in all sectors was higher than that of 2018 with 8.33 TSH in the North, 7.21 TSH in the East-Centre, 8.06 TSH in the South and 8.83 TSH in the West.

### 3. STALK HEIGHT (DURING CROP 2020)

Stalk height was initially measured during the last week of January 2020 at 48 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. The measurements were compared to those of the corresponding period in January 2019 and to the normal, referred as the mean of the five best cane yielding crops during the period 2010 to 2019.

#### 3.1 Stalk elongation (Table 4a)

Stalk elongation during the month of January 2020 was higher than that of the same period in 2019 in sectors South, West and Centre but lagged behind in the other two sectors. During the month of January 2020, the highest stalk growth was observed in the East with 49.2 cm followed by the North (48.9 cm), West (45.4 cm), South (44.9 cm) and Centre (40.0 cm). Compared to the normal for the corresponding period, growth exceeded the normal in the North by 14.4 cm, the East by 4.0 cm, the South by 7.5 cm and the Centre by 9.5 cm. Stalk elongation in January 2020 was comparable to the normal in the West.

The island stalk elongation of 46.8 cm in January 2020 was lagging behind that of the corresponding period in 2019 (49.3 cm) by 2.5 cm but was higher than that of the normal (39.3 cm) by 7.5 cm.

**Table 4a. Stalk elongation during the month of January**

Sectors	Stalk elongation (cm) during January			January 2020 as % of	
	2020	2019	Normal	2019	Normal
North	48.9	55.3	34.5	88.4	141.8
East	49.2	58.9	45.2	83.5	108.9
South	44.9	39.8	37.4	112.8	119.9
West	45.4	43.0	44.9	105.6	101.2
Centre	40.0	38.1	30.5	105.0	131.0
<b>Island</b>	<b>46.8</b>	<b>49.3</b>	<b>39.3</b>	<b>94.9</b>	<b>119.0</b>

### 3.2 Total stalk height (Table 4b and Figure 2)

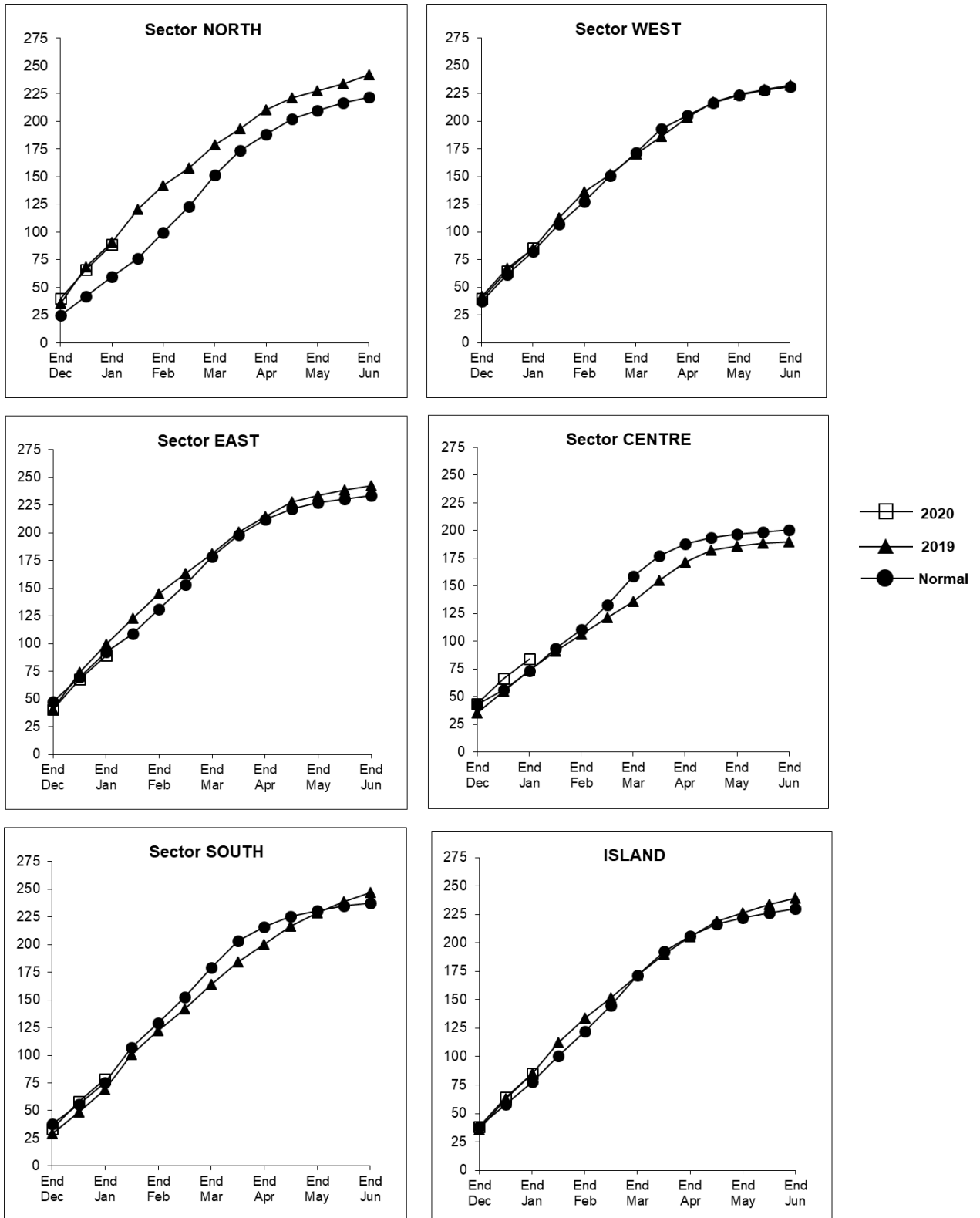
Total stalk height at end January 2020 stood at 88.7 cm in the North, 89.6 cm in the East, 78.2 cm in the South, 85.3 cm in the West and 83.8 cm in the Centre giving an island average of 85.2 cm. Compared to end-January 2019, stalk height to-date was comparable in the West but was higher by 9.5 cm in the South and 10.1 cm in the Centre. In sectors North and East, it lagged behind by 2.2 cm and 9.7 cm, respectively. Total stalk height at end-January 2020 was above normal by 29.3 cm in the North, 2.8 cm in the South, 3.0 cm in the West and 10.5 cm in the Centre whereas in the East it was lower by 3.0 cm.

At island level, the total stalk height of 85.2 cm at end of January 2020 was comparable to the corresponding period in 2019 but exceeded the normal by 7.2 cm (9.1%).

**Table 4b. Stalk height at end-January 2020**

Sectors	Stalk height (cm) at end-January			End-January 2020 as % of	
	2020	2019	Normal	2019	Normal
North	88.7	90.9	59.4	97.6	149.3
East	89.6	99.3	92.6	90.2	96.8
South	78.2	68.7	75.4	113.8	103.7
West	85.3	85.1	82.3	100.2	103.7
Centre	83.8	73.7	73.3	113.8	114.3
<b>Island</b>	<b>85.2</b>	<b>85.1</b>	<b>78.0</b>	<b>100.1</b>	<b>109.1</b>

**Figure 2. Stalk height at end- January 2020**



#### **4. CROP 2020**

Although air temperature in terms of maximum temperature and solar radiation were below normal at most stations, abundant rainfall registered over the island during the month of January 2020 favoured growth of the crop. This is reflected in stalk elongation in all sectors being higher than those of the normal and the corresponding period in 2019, except in sectors North and East. Total stalk height at the end of January 2020 was above normal in all sectors except in the East. The downpours during January 2020 have replenished the soil moisture reserve, which would be beneficial to the crop provided that high temperatures and solar radiation prevail in the coming months.