

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2019

23 January 2020

### SUGAR CANE CROP 2020

Status: End December 2019

#### 1. CLIMATE

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

Rainfall recorded during December 2019 was above the long-term mean (LTM) in all sectors of the island. The island average of 280 mm represented 146% of the long-term mean (192 mm) for the sugar cane areas. Rainfall recorded in December was 204 mm in the North, 294 mm in the East, 316 mm in the South, 107 mm in the West and 453 mm in the Centre. These amounts represented 173%, 131%, 127%, 114% and 259% of the long-term mean for these sectors, respectively.

Cumulative rainfall for the period October to December 2019 reached 278 mm in the North, 466 mm in the East, 615 mm in the South, 201 mm in the West and 662 mm in the Centre. These cumulated rainfalls represented 136%, 108%, 123%, 137% and 182% of the respective long-term mean. The island average of 467 mm for this period represented 126% of the long-term mean (372 mm).

Although the first half of December 2019 was dry, more than 50 % of the rainfall for the month was associated with the passage of tropical cyclone *Calvinia* during the last week of December 2019.

**Table 1a. Rainfall (mm) for the month of December for crops 2019, 2020<sup>+</sup> and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2019</b>	188 (159)	359 (160)	270 (109)	172 (183)	319 (182)	272 (141)
<b>2020</b>	<b>204</b> (173)*	<b>294</b> (131)	<b>316</b> (127)	<b>107</b> (114)	<b>453</b> (259)	<b>280</b> (146)
<b>LTM</b>	118	224	248	94	175	192

<sup>+</sup> Crop year is from October to September

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

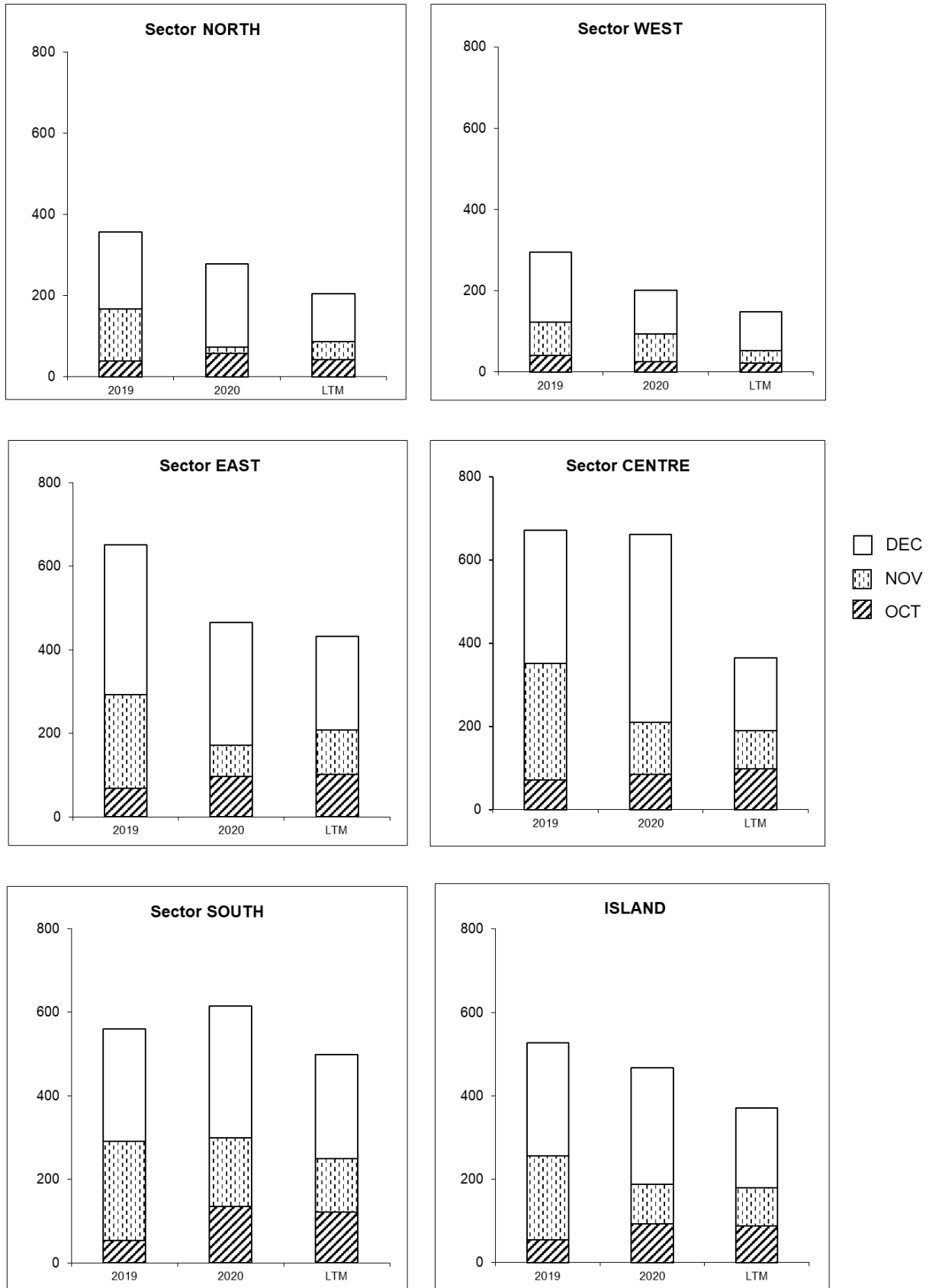
**Table 1b. Cumulative rainfall (mm) from October to December 2019 for crop 2020 compared to that of crop 2019 and the LTM**

	North	East	South	West	Centre	Island
<b>2019</b>	<b>356</b> (174)	<b>652</b> (151)	<b>560</b> (112)	<b>294</b> (200)	<b>671</b> (184)	<b>527</b> (142)
<b>2020</b>	<b>278</b> (136)*	<b>466</b> (108)	<b>615</b> (123)	<b>201</b> (137)	<b>662</b> (182)	<b>467</b> (126)
<b>LTM</b>	205	432	498	147	364	372

\* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October to December 2019 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 (Table 2)

Data on maximum and minimum temperatures together with sunshine duration recorded during the month of December 2019 on the four MSIRI agro-meteorological stations are given below.

**Table 2. Air temperatures recorded on MSIRI agro-meteorological stations in December 2019**

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Dec 2019	DevN*	Dec 2019	DevN	Dec 2019	% Normal
<b>Ferret</b>	31.2	+0.4	23.2	+2.2	258	102
<b>Réduit</b>	29.0	+1.2	21.1	+0.8	246	107
<b>Belle Rive</b>	27.8	+0.9	20.4	+2.0	210	102
<b>Union Park</b>	28.7	+1.9	21.5	+2.0	201	102

\* Deviation from the Normal (1981-2010)

The maximum as well as the minimum temperatures recorded at all stations during December 2019 exceeded the normal, the difference ranging from 0.4°C to 1.9°C for maximum temperature and from 0.8°C to 2.2°C for minimum temperature. Recorded bright sunshine during December 2019 was above normal at all stations and as a percentage of the normal was 107% at Réduit and 102% at the remaining stations.

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

As at 28 December 2019, 30 188 ha representing 96% of miller-planters' land were harvested. Sector-wise and for miller-planters only, harvested area reached 97% in the North, 99% in the West and 96% in the remaining sectors.

Cane productivity for the island as at end-December 2019 was 80.9 TCH and exceeded that recorded in 2018 (70.4 TCH) by 10.5 TCH (14.9 %). 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 7.8 TCH in the North to 12.1 TCH in the Centre.

**Table 3a. Cane productivity (TCH) as at end December 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>	80.2	79.1	83.6	89.3	64.2	<b>80.9</b>

The recorded island extraction rate at end December 2019 was 9.78% and was lower than that of 2018 (10.26%) by 0.48%. Sector-wise, the extraction rate recorded was 10.39% in the North, 9.42% in the East-Centre, 9.69% in the South and 9.94% in the West. These figures were inferior to those obtained in 2018.

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

Sector	Extraction rate (%)		Sugar Productivity (TSH)	
	2018	2019	2018	2019
North	10.71	10.39	7.75	8.33
East-Centre	9.97	9.42	6.48	7.22
South	10.21	9.69	7.41	8.10
West	10.38	9.94	8.33	8.88
<b>Island</b>	<b>10.26</b>	<b>9.78</b>	<b>7.22</b>	<b>7.91</b>

The sugar productivity of 7.91 TSH recorded over the island at the end of December 2019 was higher than that of 2018 (7.22 TSH) by 0.69 tonne (9.6%). Likewise, sugar productivity in all sectors was higher than that of 2018 with 8.33 TSH in the North, 7.22 TSH in the East-Centre, 8.10 TSH in the South and 8.88 TSH in the West.

### 3. STALK HEIGHT (*Table 4*)

Stalk height were initially measured during the last week of December 2019 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 December 2018 and to the normal referred as the mean of the five best cane yielding crops during the period 2010 to 2019.

**Table 4. Stalk height (cm) at end-December 2019**

Sectors	Stalk height (cm) at end-December			End-December 2019 as % of	
	2019	2018	Normal	2018	Normal
North	39.8	35.6	24.9	111.8	159.6
East	40.4	40.4	47.4	100.0	85.2
South	33.3	28.9	37.9	115.2	87.8
West	39.9	42.1	37.4	94.8	106.6
Centre	43.8	35.6	42.8	123.1	102.4
<b>Island</b>	<b>38.4</b>	<b>35.8</b>	<b>38.5</b>	<b>107.3</b>	<b>99.7</b>

Stalk height at end December 2019 averaged 39.8 cm in the North, 40.4 cm in the East, 33.3 cm in the South, 39.9 cm in the West and 43.8 cm in the Centre. These figures exceeded those recorded in December 2018 by 4.2 cm in the North, 4.4 cm in the South and 8.2 cm in the Centre. It was comparable in the East but was lagging behind in the West by 2.2 cm.

Stalk height at end December 2019 was higher than the normal by 59.6% in the North, 6.6% in the West and 2.4% in the Centre. In the other sectors, it lagged behind by 14.8% in the East and 12.2% in the South.

At island level, the cane height of 38.4 cm, as at end-December 2019, was above that of the corresponding period in December 2018 by 7.3% and was comparable to the normal.

### **3. CROP 2020**

Although the first half of December 2019 was characterised by a dry spell, the passage of tropical cyclone *Calvinia* during the last week of December 2019 brought abundant rainfall which was beneficial to the crop. Air temperature and solar radiation during the month were also above normal and were conducive to crop growth. This is reflected in stalk height for December 2019 in sectors North, West and the Centre being higher than the normal as regrowth has been much better. However, in sectors East and South the below normal stalk height recorded in December 2019 could be attributed to the delay in harvest and slow growth observed in the late season varieties. This shortfall can be recouped provided weather conducive to growth prevails in the coming months and that agronomic and cultural practices are adopted as per established recommendations.

**Figure 2. Evolution of extraction rate (%) for the 2018 and 2019 crops**

