

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2020

Status: End April 2020

1. CLIMATE

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

The island's average rainfall for the month of April 2020 was 192 mm over the sugar cane areas and it represented 80% of the long-term mean (LTM). Below normal rainfall was recorded in all sectors with 99 mm, 272 mm, 223 mm, 32 mm and 217 mm in the North, East, South, West and Centre respectively. These amounts represented 72% of the long-term mean in the North, 97% in the East, 71% in the South, 38% in the West and 89% in the Centre.

Cumulative rainfall during the period October 2019 to April 2020 was 1155 mm in the North, 2026 mm in the East, 2073 mm in the South, 812 mm in the West and 2131 mm in the Centre. These cumulated rainfalls represented 121%, 114%, 106%, 107% and 126% of the respective long-term mean. The island average of 1751 mm for this period represented 112% of the long-term mean (1557 mm).

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

	North	East	South	West	Centre	Island
2019	277 (202)	440 (158)	330 (104)	135 (161)	473 (194)	345 (144)
2020	99 (72)*	272 (97)	223 (71)	32 (38)	217 (89)	192 (80)
LTM	137	279	316	84	244	239

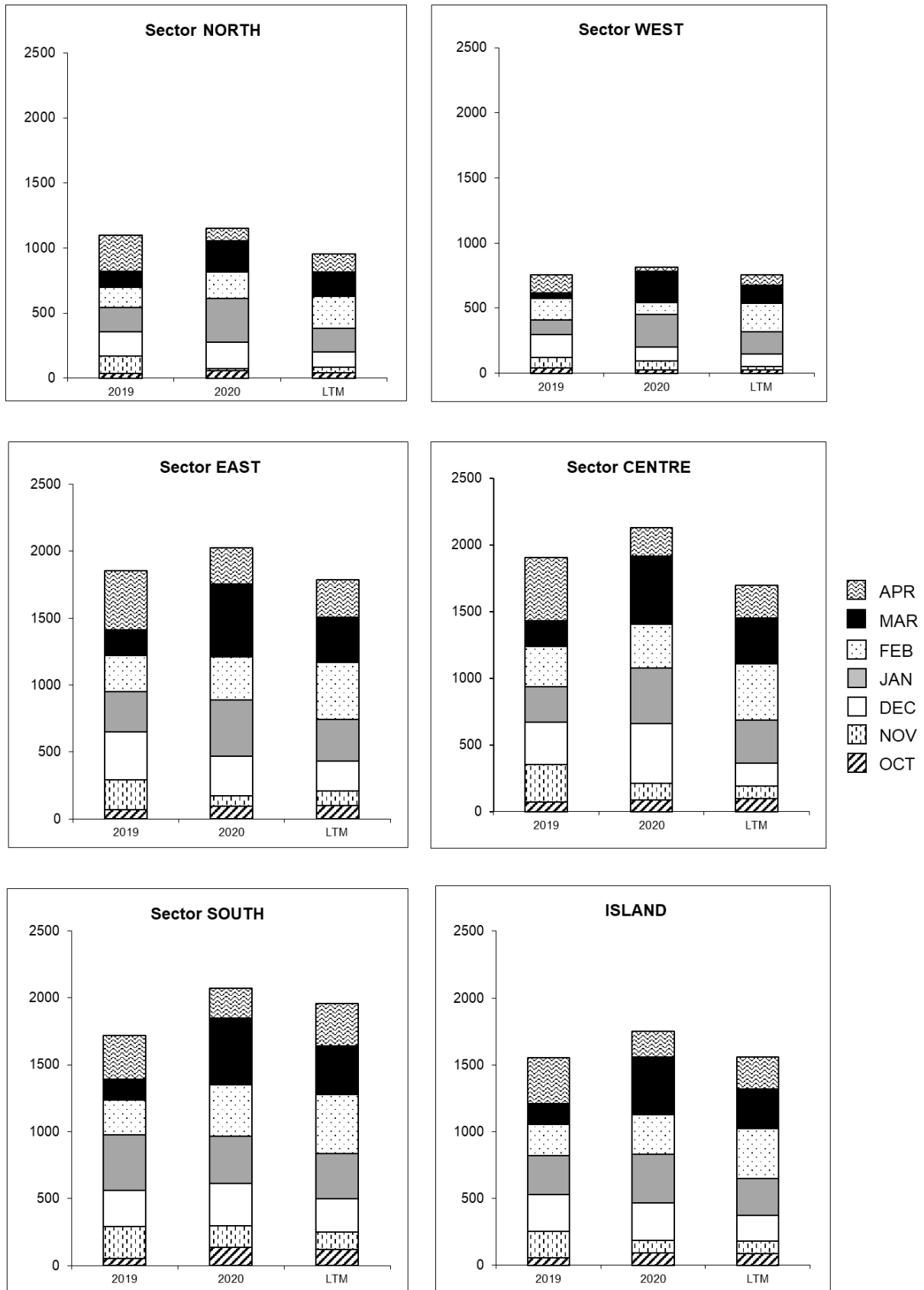
* figures in brackets are % of LTM (1981-10)

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

	North	East	South	West	Centre	Island
2019	1101 (115)	1854 (104)	1720 (88)	753 (99)	1904 (112)	1553 (100)
2020	1155 (121)*	2026 (114)	2073 (106)	812 (107)	2131 (126)	1751 (112)
LTM	955	1785	1955	758	1695	1557

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

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

Of the four MSIRI agro-meteorological stations, weather data were recorded at only two stations namely at Réduit and Union Park due to constraints associated with the COVID 19 confinement (Table 2).

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

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Apr 2020	DevN*	Apr 2020	DevN	Apr 2020	% Normal
Réduit	25.9	-0.9	20.1	-0.2	210	99
Union Park	26.4	+0.5	20.2	+0.5	143	94

* Deviation from the Normal (1981-2010)

Mean monthly maximum temperature during April 2020 was below normal by 0.9° at Réduit but exceeded the normal by 0.5° at Union Park. Similar trend was observed for mean minimum temperature at both stations. Solar radiation during the month of April 2020 was comparable to the normal at Réduit but was below normal by 6% at Union Park. Below normal temperature and sunshine hours are not conducive to stalk growth.

2. STALK HEIGHT

Stalk height was measured during the first week of May 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. These data together with the data collected in mid-March 2020 were used to estimate the stalk elongation during the month of April 2020 and were compared with the mean of the five best cane yielding crops for the period 2010 to 2019 in each sector (referred to as normal).

2.1 Stalk elongation (Table 3a)

Stalk elongation estimated during the month of April 2020 was lower than for the corresponding period in 2019 in most sectors, except in the East sector. Growth during the month of April amounted to 26.8 cm in the North, 33.1 cm in the East, 29.9 cm in the South, 31.6 cm in the West and 29.7 cm in the Centre. Compared to the normal, growth during April 2020 was inferior in the North, South and Centre by 8.7 cm, 7.5 cm and 0.6 cm, respectively whereas in the other sectors it was comparable to the normal. Island-wise, the stalk growth of 30.4 cm at end April 2020 represented 89% of that recorded in the corresponding period in 2019 and 92% of the normal growth.

2.2 Cumulative elongation (Table 3b)

Stalk growth from end-December 2019 to end-April 2020 cumulated to 162.4 cm in the North, 166.9 cm in the East, 166.2 cm in the South, 147.3 cm in the West and 145.5 cm in the Centre. These cumulative growths, compared to the same period last year, were lower by 12.2 cm in the North, 7.3 cm in the East, 5.2 cm in the South and 14.1 cm in the West whereas in the

Centre it was higher by 9.9 cm. For the same period, cumulative growth exceeded the normal in the East by 1.0 cm and the Centre by 1.5 cm, but lagged behind the normal in the North by 1.9 cm, in the South by 4.0 cm and the West by 18.2 cm.

Island-wise the cumulative elongation of 162.1 cm in April 2020 was lower than that of the 2019 crop (169.5 cm) by 4.4% but was comparable to the normal.

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

Sectors	Stalk elongation (cm) during April			April 2020 as % of	
	2020	2019	Normal	2019	Normal
North	26.8	31.7	35.5	84.5	75.5
East	33.1	33.6	33.2	98.5	99.6
South	29.9	36.1	37.4	82.8	79.9
West	31.6	33.3	31.9	94.9	99.0
Centre	29.7	34.9	30.3	85.1	98.1
Island	30.4	34.0	33.2	89.4	91.5

Table 3b. Cumulative elongation at end-April 2020.

Sectors	Cumulative elongation (cm) at End-April			End-April 2020 as % of	
	2020	2019	Normal	2020	Normal
North	162.4	174.6	164.3	93.0	98.9
East	166.9	174.2	165.9	95.8	100.6
South	166.2	171.4	170.2	97.0	97.6
West	147.3	161.4	165.5	91.3	89.0
Centre	145.5	135.6	144.0	107.3	101.1
Island	162.1	169.5	163.0	95.6	99.4

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

Total stalk height at end-April 2020 was 202.2 cm in the North, 207.3 cm in the East, 199.5 cm in the South, 187.2 cm in the West and 189.3 in the Centre. Compared to end-April 2019, stalk height to-date was comparable in the South, higher in the Centre by 18.1 cm but was lagging behind in the other sectors by 8.0 cm in the North, 7.3 cm in the East and 16.3 cm in the West. Total stalk height at end-April 2020 was above normal by 13.0 cm in the North and 2.6 cm in the Centre but lagged behind the normal in the East by 6.0 cm, the South by 8.7 cm and the West by 15.7 cm.

At island level, the total stalk height of 200.5 cm at end-April 2020 was lower than the corresponding period in 2019 and the normal by 4.8 cm (2.3%) and 3.3 cm (1.7%), respectively.

Table 3c. Total stalk height at end-April.

Sectors	Stalk height (cm) at end-April			End-April 2020 as % of	
	2020	2019	Normal	2019	Normal
North	202.2	210.2	189.2	96.2	106.9
East	207.3	214.6	213.3	96.6	97.2
South	199.5	200.3	208.2	99.6	95.8
West	187.2	203.5	202.9	92.0	92.3
Centre	189.3	171.2	186.7	110.6	101.4
Island	200.5	205.3	203.8	97.7	98.3

3. CROP 2020

In contrast to the normal rainfall recorded during the month of March 2020, the month of April was characterised by below normal rainfall in all sectors coupled with below normal temperature and near normal solar radiation at Réduit; and above normal temperature and below normal solar radiation at Union Park. These climatic conditions were not conducive to optimum stalk growth which was clearly seen from the elongation data of April 2020 which lagged behind those of 2019 and the normal in most sectors. Thus, stalk elongation during April 2020 over the island lagged behind the normal by 8.5% while total stalk height over the island at the end of April 2020 was below the normal by nearly 1.7%.

A better estimation will be available in the month of May 2020, where data collection at all stations have resumed. Moreover, cane analysis is scheduled for the last week of May 2020 and the results will give an indication of the status of sucrose accumulation and of the ripening process.

Figure 2. Stalk height at end-April 2020

