

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2020

21 June 2020

SUGAR CANE CROP 2020

Status: End May 2020

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of May 2018 was well below normal with an island average of 81 mm, representing 47% of the long-term mean (LTM) of 170 mm. Sector-wise, rainfall was lagging behind the respective LTM of the month with 30 mm in the North, 101 mm in the East, 114 mm in the South, 3 mm in the West and 98 mm in the Centre.

The cumulative rainfall over the period October 2019 to May 2020 amounted to 1185 mm in the North, 2127 mm in the East, 2187 mm in the South, 815 mm in the West and 2229 mm in the Centre, and represented 114%, 107%, 100%, 102% and 118% of the respective LTM. The island average of 1832 mm for this period represented 106% of the LTM (1727 mm).

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

	North	East	South	West	Centre	Island
2019	79 (89)	170 (82)	189 (85)	8 (20)	166 (86)	142 (83)
2020	30 (34)*	101 (49)	114 (51)	3 (8)	98 (51)	81 (47)
LTM	89	207	222	40	194	170

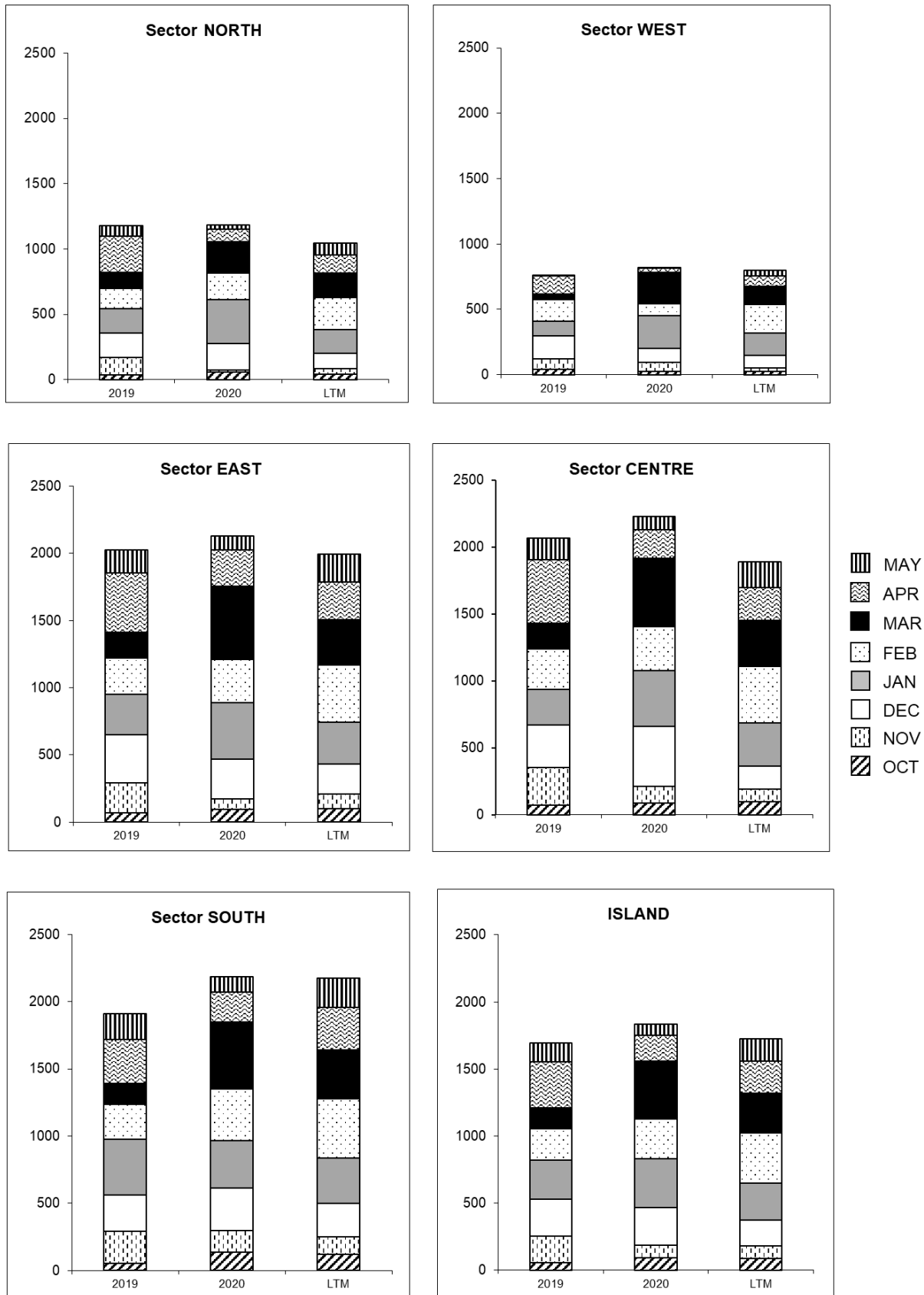
* figures in brackets are % of LTM (1981-10)

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

	North	East	South	West	Centre	Island
2019	1180 (113)	2024 (102)	1909 (88)	761 (95)	2070 (110)	1694 (98)
2020	1185 (114)*	2127 (107)	2187 (100)	815 (102)	2229 (118)	1832 (106)
LTM	1044	1992	2177	798	1889	1727

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

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

Data on maximum and minimum temperatures as well as temperature amplitude, recorded during the month of May 2020 on MSIRI agro-meteorological stations, are given below.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in May 2020

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	May 2020	DevN*	May 2020	DevN*	May 2020	DevN*
Ferret	27.8	-0.3	19.0	+0.2	8.8	-0.5
Réduit	24.9	-0.2	17.3	-0.7	7.6	+0.5
Belle Rive	24.8	0.0	17.1	+0.5	7.7	-0.5
Union Park	25.0	+0.7	18.4	+0.5	6.6	+0.2

* Deviation from the Normal (1981-2010)

Mean maximum temperature during May 2020 was below normal at Ferret and Réduit, similar at Belle Rive and above normal at Union Park. Mean minimum temperature was above normal at all stations except at Réduit. The resulting mean amplitude exceeded the normal by 0.5° at Réduit and 0.2° at Union Park but lagged behind the normal by 0.5° at the other two stations. Generally, high temperature amplitude is conducive to sucrose accumulation.

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during May 2020 were above normal at all four stations. Recorded bright sunshine as a percentage of the normal amounted to 103 at Ferret, 107 at Réduit, 115 at Belle Rive and 114 at Union Park.

Table 3. Sunshine duration (h) recorded on MSIRI agro-meteorological stations in May 2020

Station	May 2020	Normal	% of Normal
Ferret	245	238	103
Réduit	232	217	107
Belle Rive	234	204	115
Union Park	184	162	114

2. STALK HEIGHT

Stalk height was measured during the last 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. Data collected were compared with those of the corresponding period in May 2019 and to 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 4a)

Stalk elongation during the month of May 2020 was lower than that for the corresponding period in 2019 in all sectors. Stalk growth during the month of May 2020 was 9.2 cm in the North, 13.0 cm in the East, 18.3 cm in the South, 12.4 cm in the West and 10.1 cm in the Centre. Compared to the normal, growth during May 2020 was inferior in the North, East and West by 12.5 cm, 3.0 cm and 7.0 cm, respectively whereas in the other sectors it was slightly higher than the normal. Island-wise, the stalk growth of 13.5 cm at end May 2020 was lagging behind that of the corresponding period in 2019 by 7.8 cm and to the normal by 4.9 cm.

Table 4a. Stalk elongation during the month of May.

Sectors	Stalk elongation (cm) during May			May 2020 as % of	
	2020	2019	Normal	2019	Normal
North	9.2	16.9	21.7	54.4	42.4
East	13.0	19.3	16.0	67.4	81.3
South	18.3	28.2	17.4	64.9	105.1
West	12.4	20.4	19.4	60.8	63.8
Centre	10.1	15.1	8.5	66.9	119.1
Island	13.5	21.3	18.4	63.2	73.2

2.2 Cumulative elongation (Table 4b)

Cumulative stalk growth from end-December 2019 to end-May 2020 reached 171.6 cm in the North, 179.9 cm in the East, 184.5 cm in the South, 159.7 cm in the West and 155.6 cm in the Centre. These cumulative growths, compared to the same period last year, were lower by 19.9 cm in the North, 13.6 cm in the East, 15.1 cm in the South and 22.1 cm in the West whereas in the Centre it was higher by 4.9 cm. Cumulative growth for the same period was inferior to the normal in the North by 14.4 cm, the East by 2.0 cm, the South by 3.2 cm and the West by 25.2 cm, whereas in the Centre it was higher than the normal by 3.2 cm.

Island-wise the cumulative elongation of 175.6 cm in May 2020 was lower than that of the 2019 crop (190.8 cm) by 8.0% and the normal (181.4 cm) by 3.2%.

2.3 Total stalk height (Table 4c and Figure 2)

Total stalk height at end-May 2020 amounted to 211.4 cm in the North, 220.3 cm in the East, 217.8 cm in the South, 199.6 cm in the West and 199.4 cm in the Centre. Compared to the corresponding period in 2019, stalk height to-date was higher in the Centre, but was lagging behind in the other sectors by 15.7 cm in the North, 13.6 cm in the East, 10.7 cm in the South and 24.3 cm in the West. Total stalk height at end-May 2020 was comparable to the normal in the North, higher in the Centre by 4.2 cm, but lagged behind the normal in the East by 9.0 cm, the South by 7.8 cm and the West by 22.7 cm.

At island level, the total stalk height of 214 cm at end-May 2020 was lower than the corresponding period in 2019 and the normal by 12.6 cm (5.6%) and 7.3 cm (3.3%), respectively.

Table 4b. Cumulative elongation at end-May.

Sectors	Cumulative elongation (cm) at End-May			End-May 2020 as % of	
	2020	2019	Normal	2020	Normal
North	171.6	191.5	186.0	89.6	92.3
East	179.9	193.5	181.9	93.0	98.9
South	184.5	199.6	187.7	92.4	98.3
West	159.7	181.8	184.9	87.8	86.4
Centre	155.6	150.7	152.4	103.3	102.1
Island	175.6	190.8	181.4	92.0	96.8

Table 4c. Total stalk height at end-May.

Sectors	Stalk height (cm) at end-May			End-May 2020 as % of	
	2020	2019	Normal	2019	Normal
North	211.4	227.1	210.9	93.1	100.2
East	220.3	233.9	229.3	94.2	96.1
South	217.8	228.5	225.6	95.3	96.5
West	199.6	223.9	222.3	89.1	89.8
Centre	199.4	186.3	195.2	107.0	102.2
Island	214.0	226.6	221.3	94.4	96.7

3. SUCROSE ACCUMULATION (Tables 5a and 5b)

Analysis for sucrose content during the last week of May 2020 was carried out in cane samples from miller-planters' land in all factory areas and covering the main cultivated varieties. The average Pol % cane (*richesse*) was calculated on the basis of area under cultivation of each variety in the different factory areas of each sector. The results were compared with those of the last two years.

Table 5a. Average Pol % cane (richesse) in different varieties at end-May 2020.

Sectors	M 52/78	M 703/89	R 573	M 2256/88	R 575	M 387/85	M 1246/84	M 1989/99	M 2593/92	M 2283/98	M 1400/86	M 1176/77	M 1861/89	R 579	M 1672/90	R 570
North			13.2	11.5			10.3		11.0		9.8	11.7		8.8	9.4	8.9
East		10.9	12.5	11.5		10.4			10.0		9.4	10.2		8.0		7.2
South	12.4	11.5	11.6		11.2	11.3		7.7	9.9	8.1	9.1	10.3	10.7	8.1	8.7	9.5
West			11.9	12.0	12.2				9.4		8.1	10.3		8.7		11.3
Centre	12.0	11.0	12.4			9.5					10.2	9.4		8.4		

Table 5b. Pol % cane (richesse) calculated sector-wise at the end of May 2020, compared to corresponding period in 2018 and 2019.

Sectors	MAY		
	2018	2019	2020
North	9.8	9.2	10.0
East	10.6	9.2	9.2
South	10.5	9.8	9.5
West	11.4	9.7	9.7
Centre	10.8	9.0	9.8
Island	10.5	9.4	9.6

The *richesse* at the end of May 2020 reached 10.0 in the North, 9.2% in the East, 9.5% in the South, 9.7% in the West and 9.8% in the Centre. Compared to the corresponding period in 2019, sucrose content at end-May 2020 was similar in sectors East and West, lagged behind in the South by 0.3°, but exceeded those of the North and Centre by 0.8° in both sectors. Sucrose content at the end of May, for the present crop, was lower than that of the corresponding period in 2018 in all sectors except in the North.

Island-wise, the *richesse* of 9.6% recorded at end of May 2020 was slightly higher than that of the corresponding period in 2019 by 0.2° but lagged behind that of 2018 by 0.9°.

4. CROP 2020

The weather during May 2020 was characterised by very dry conditions with well below normal rainfall (47% of LTM island-wise) coupled with above normal sunshine duration. Above normal temperature amplitude was recorded at two out of the four MSIRI stations. These conditions were more favourable to sucrose accumulation than for crop growth. This is reflected in stalk elongation rate for the island for the month of May, which lagged behind the normal by 27% and total stalk height which remained below 3.3% of the normal. However, sucrose accumulation in May 2020 over the whole island is considered satisfactory and above that of last year. With the onset of winter, sucrose accumulation rate is expected to increase in the coming weeks.

Figure 2. Stalk height at end-May 2020

