

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2022

21 June 2022

### SUGAR CANE CROP 2022

**Status: End May 2022**

#### 1. CLIMATE

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

The island's average rainfall for the month of May 2022 was 147 mm over the sugar cane areas representing 90% of the normal (163 mm). Rainfall recorded lagged behind the long-term mean (LTM) in all sectors except in the Centre. The amount recorded in May 2022 were 76 mm in the North, 174 mm in the East, 189 mm in the South, 17 mm in the West and 207 mm in the Centre.

The total rainfall for the period October 2021 to May 2022 amounted to 2068 mm, representing 124% of the long-term mean for the island. During the same period, 1211 mm were recorded in the North, 2322 mm in the East, 2591 mm in the South, 897 mm in the West and 2637 mm in the Centre. These values represented 119%, 114%, 134%, 108% and 128% of the respective long-term means.

**Table 1a. Rainfall (mm) for the month of May for crops 2021, 2022 and the long term mean (LTM).**

	North	East	South	West	Centre	Island
<b>2021</b>	37 (41)	126 (61)	159 (82)	22 (52)	166 (81)	112 (69)
<b>2022</b>	<b>76</b> (84)*	<b>174</b> (84)	<b>189</b> (97)	<b>17</b> (40)	<b>207</b> (101)	<b>147</b> (90)
<b>LTM</b>	90	207	195	42	204	163

\* figures in brackets are % of LTM (1991-2020)

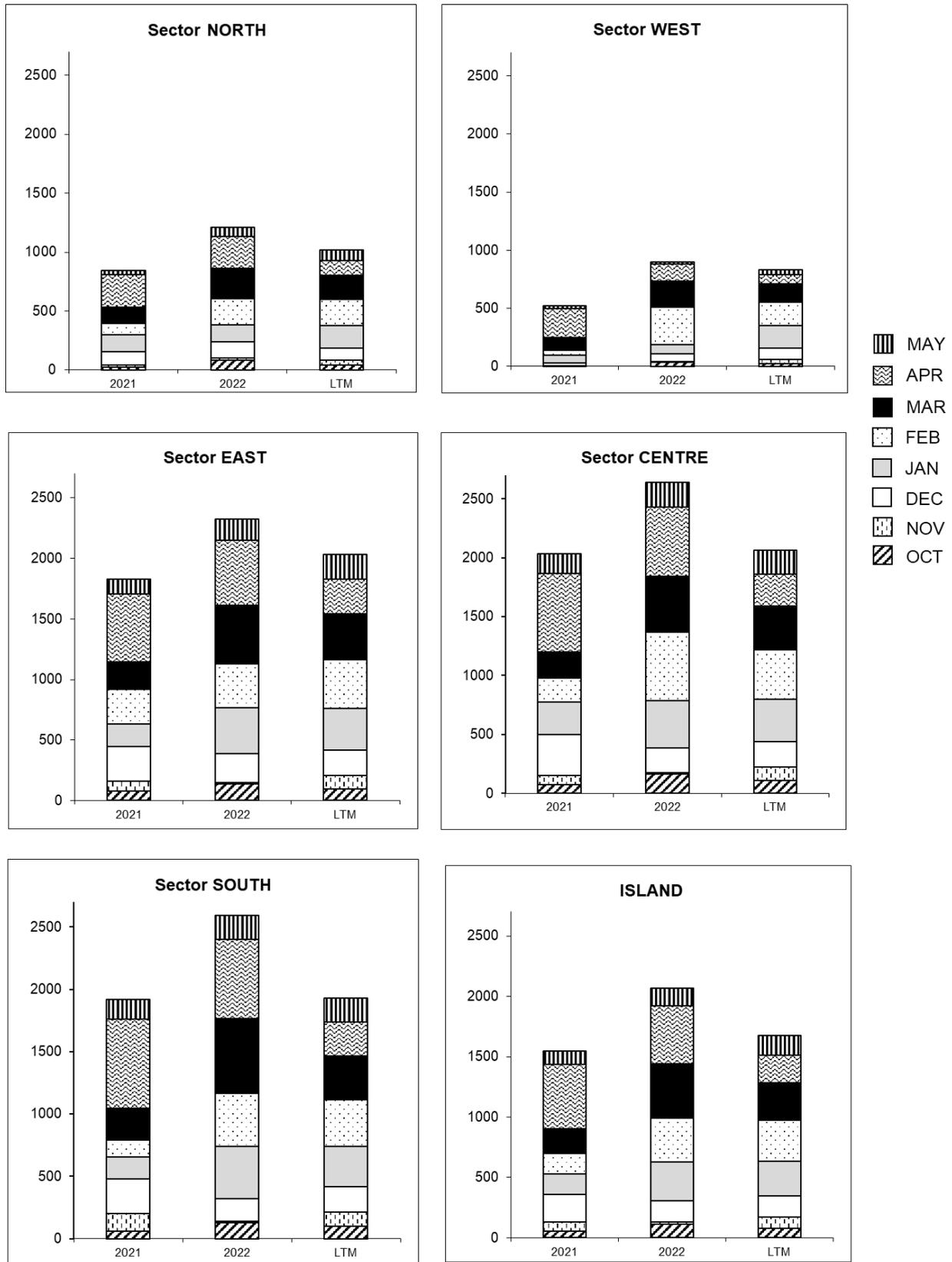
**Table 1b. Cumulative rainfall (mm) from October 2021 to May 2022 for crop 2022 compared to that of crop 2021 and the long term mean (LTM).**

	North	East	South	West	Centre	Island
<b>2021</b>	844 (83)	1831 (90)	1917 (99)	522 (63)	2034 (98)	1545 (92)
<b>2022</b>	<b>1211</b> (119)*	<b>2322</b> (114)	<b>2591</b> (134)	<b>897</b> (108)	<b>2637</b> (128)	<b>2068</b> (124)
<b>LTM</b>	1020	2034	1930	830	2066	1672

\* figures in brackets are % of LTM

[Source: Provisional data from Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2021 to May 2022 for the 2022 crop compared to the same period of the 2021 crop and to the long-term mean (LTM).**



### 1.2 Air Temperature (Table 2)

Data on air temperature recorded during the month of May 2022 on MSIRI agro-meteorological stations are given below.

**Table 2. Air temperature recorded on MSIRI agro-meteorological stations in May 2022.**

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	May 2022	DevN*	May 2022	DevN*	May 2022	DevN*
<b>Ferret</b>	27.9	-0.1	19.5	+0.5	8.4	-0.6
<b>Réduit</b>	25.1	-0.3	18.6	+0.7	6.5	-1.0
<b>Union Park</b>	25.0	+0.4	19.1	+1.0	6.0	-0.6
<b>Belle Rive</b>	23.5	-1.5	17.3	+0.3	6.2	-1.8

\* Deviation from the Normal (1981-2010)

Mean maximum temperature during May 2022 was below normal at Réduit by 0.3°C and at Belle Rive by 1.5°C, close to normal at Ferret, but higher than the normal at Union Park by 0.4°C. The mean minimum temperature, compared to the normal, was higher at all stations ranging from 0.3°C at Belle Rive to 1.0°C at Union Park. The resulting mean amplitude lagged behind the normal at all stations ranging from 0.6 °C at both Ferret and Union Park to 1.8°C at Belle Rive. Lower temperature amplitudes are generally not conducive to sucrose accumulation.

### 1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during the month of May 2022 were below normal at Belle Rive, close to normal at Réduit, but above normal at the other two stations. Recorded bright sunshine compared to the normal amounted to 112% at Ferret, 99% at Réduit, 102% at Union Park and 95% at Belle Rive.

**Table 3. Sunshine duration (h) recorded on MSIRI agro-meteorological stations in May 2022.**

Station	May 2022	Normal	% of Normal
<b>Ferret</b>	263	234	112
<b>Réduit</b>	219	220	99
<b>Union Park</b>	166	162	102
<b>Belle Rive</b>	186	196	95

## 2. STALK HEIGHT

During the last week of May 2022, stalk height was assessed at 54 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 were compared with those of the corresponding period in May 2021 and to the normal, referred to as the mean of the five best cane yielding crops during the period 2012 to 2021.

### 2.1 Stalk elongation (Table 4a)

Stalk growth during the month of May 2022 was higher in sectors North and East, but lagged behind in the other sectors compared to the figures recorded during the corresponding period in 2021. Stalk elongation in May 2022 amounted to 20.9 cm in the North, 16.6 cm in the East, 18.2 cm in the South, 13.7 cm in the West and 8.7 cm in the Centre. These figures were higher than the normal in the East and Centre, but lower in the other sectors by 0.5 cm in the North, 0.8 cm in the South and 7.4 cm in the West. The 17.1 cm average elongation for the island was inferior to that of May 2021 (17.6 cm) and also inferior to that of the normal (18.9 cm).

**Table 4a. Stalk elongation during the month of May 2022.**

Sectors	Stalk elongation (cm) during May			May 2022 as % of	
	2022	2021	Normal	2021	Normal
North	20.9	16.1	21.4	129.8	97.7
East	16.6	13.8	16.0	120.3	103.8
South	18.2	22.9	19.0	79.5	95.8
West	13.7	19.3	21.1	71.0	65.0
Centre	8.7	12.3	8.2	70.7	106.6
<b>Island</b>	<b>17.1</b>	<b>17.6</b>	<b>18.9</b>	<b>97.2</b>	<b>90.7</b>

### 2.2 Cumulative elongation (Table 4b)

The cumulative stalk growth from end-December 2021 to end-May 2022 amounted to 166.7 cm in the North, 179.4 cm in the East, 177.5 cm in the South, 159.5 cm in the West and 123.7 cm in the Centre. These cumulative growths compared to the same period last year were higher in the North, East and West sectors, but lower in the other two sectors. For the same period, cumulative growth was lagging behind that of the normal in all sectors, with the highest deficit of 26.3 cm in the Centre and the lowest deficit of 2.5 cm in the East. Island-wise the cumulative elongation of 169.7 cm in May 2022 was lower than that of the 2021 crop (173.5 cm) by 2.2% and lower to the normal (178.8 cm) by 5.1%.

**Table 4b. Cumulative elongation at end-May 2022.**

Sectors	Cumulative elongation (cm) at end- May			End-May 2022 as % of	
	2022	2021	Normal	2021	Normal
North	166.7	161.7	189.2	103.1	88.1
East	179.4	179.0	181.9	100.2	98.6
South	177.5	187.5	181.2	94.7	97.9
West	159.5	158.3	181.7	100.8	87.8
Centre	123.7	152.1	150.0	81.3	82.5
<b>Island</b>	<b>169.7</b>	<b>173.5</b>	<b>178.8</b>	<b>97.8</b>	<b>94.9</b>

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

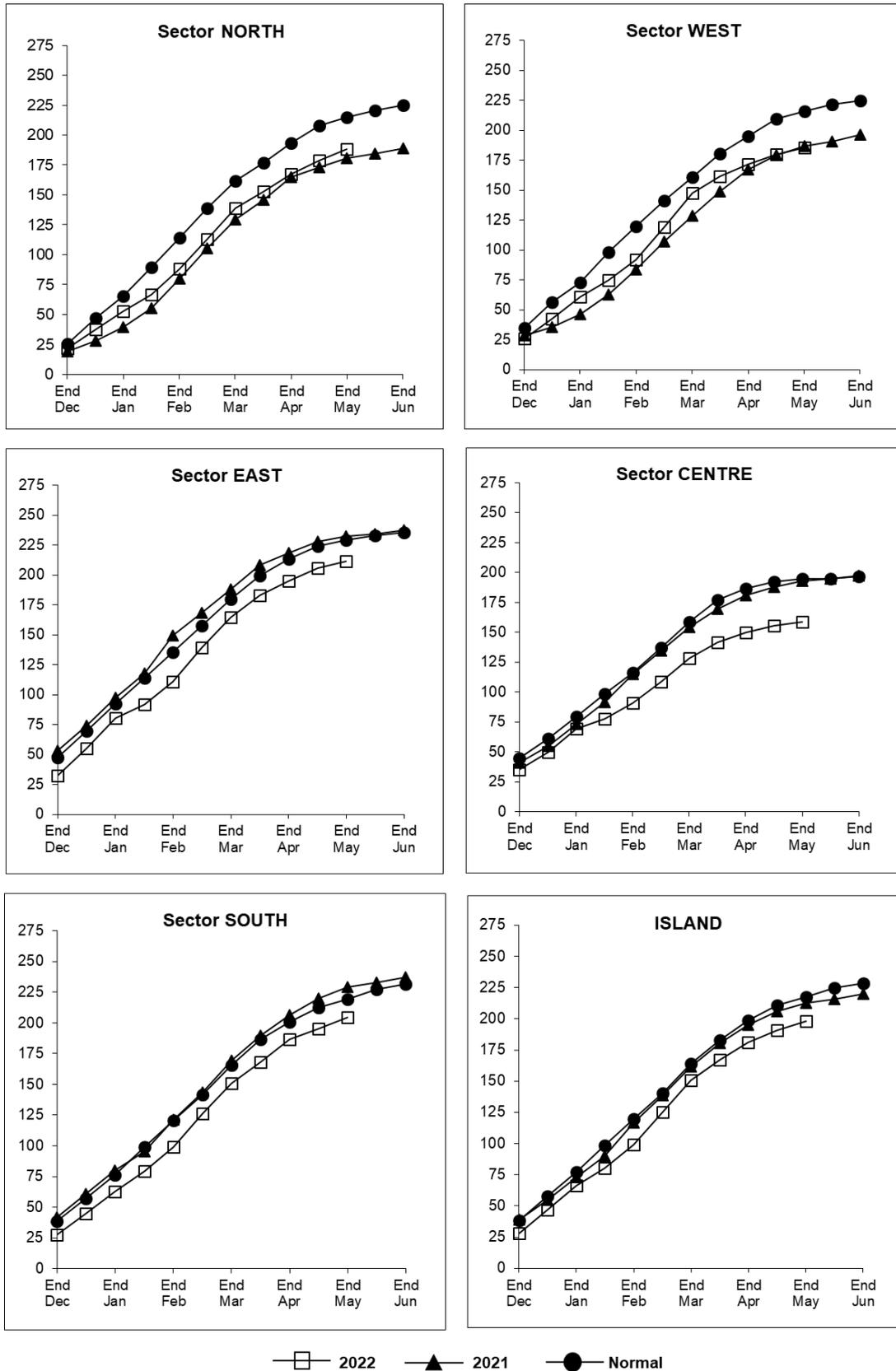
Total stalk height at end May 2022 was 188.6 cm in the North, 211.5 cm in the East, 204.8 cm in the South, 185.5 cm in the West and 158.8 cm in the Centre giving an island average of 198.1 cm. Compared to the corresponding period in 2021, stalk height to-date was higher in the North only by 7.9 cm, but lagged behind in the other sectors by 20.6 cm in the East, 24.6 cm in the South, 0.5 cm in the West and 34.5 cm in the Centre. Total stalk height at end-May 2022 was inferior to that of the normal in all sectors, the difference ranging from 14.8 cm in the South to 36.3 cm in the Centre.

At island level, the total stalk height of 198.1 cm at end of May 2022 was lagging behind the corresponding period in 2021 by 14.6 cm (6.9%) and the normal by 19.1 cm (8.8 %).

**Table 4c. Total stalk height at end-May 2022.**

Sectors	Stalk height (cm) at end-May			End-May 2022 as % of	
	2022	2021	Normal	2021	Normal
North	188.6	180.7	214.7	104.4	87.8
East	211.5	232.1	229.3	91.1	92.2
South	204.8	229.4	219.6	89.3	93.3
West	185.5	186.0	216.2	99.3	85.8
Centre	158.8	193.3	195.1	82.2	81.4
<b>Island</b>	<b>198.1</b>	<b>212.7</b>	<b>217.3</b>	<b>93.1</b>	<b>91.2</b>

Figure 2. Stalk height at end-May 2022.



### 3.0 SUCROSE ACCUMULATION (Tables 5a and 5b)

Cane samples from miller-planters' land in all factory areas and covering the main cultivated varieties were analysed for sucrose content during the last week of May 2022. 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) at end-May 2022.**

Variety	Harvest Date *	North	East	South	West	Centre
M 52/78	E			10.9		11.8
M 703/89	E					9.0
R 573	E, M	10.2	10.5	10.6	8.0	10.8
M 2256/88	E, M	10.1	12.0			
R 575	E, M			9.4	10.4	
M 387/85	E, M		10.0	10.1		8.7
M 1246/84	M, L	7.8	9.1			
M 1989/99	M, L	5.9				
M 2283/98	M, L			7.8		
M 1176/77	M	8.3	10.6	8.3	10.0	9.4
M 1861/89	M, L			8.6		
M 2593/92	M/L	7.4	8.6	7.7	8.3	
M 1400/86	M	6.3	8.4	8.2	8.1	8.7
M 2502/99	M		8.6			
R 579	L	7.2	7.1	7.1	8.7	7.5
M 1672/90	M, L	6.5	7.4			
R 570	M, L	5.9	6.0	7.6	9.0	
M 915/05	M, L	7.1		6.6	8.8	8.1
M 683/99	M, L	5.9			8.3	
M 216/02	E, M	9.9		8.9		
M 1561/01	E, M			9.1		
M 1256/04	M			8.2		
M 1002/02	M, L	7.1			9.8	
M 64	M, L			7.9		
M 65	M			6.6		
M 1392/00	E, M	7.0				

\* as per Recommendation Sheet No. 197 (harvest), April 2022, (E - early, M - middle, L - late)

**Table 5b. Comparison of Pol % cane (richesse) at the end of May 2020, 2021 and 2022.**

Sectors	May		
	2020	2021	2022
North	10.0	6.3	7.1
East	9.2	8.5	8.4
South	9.5	8.5	8.1
West	9.7	6.9	9.0
Centre	9.8	9.2	8.6
Island	9.6	7.9	8.1

The *richesse* at the end of May 2022 reached 7.1% in the North, 8.4% in the East, 8.1% in the South, 9.0% in the West and 8.6% in the Centre. Compared to the corresponding period in 2021, sucrose content at end-May 2022 was higher in the North by 0.8° and 2.1° in the West. In sector East, it was comparable but lagged behind by 0.4° in the South and 0.6° in the Centre. Sucrose content at the end of May, for the present crop, was lower than that of the corresponding period in 2020 in all sectors.

From end-April to end-May 2022, sucrose content has improved by 2.3° in the North and East, 1.4° in the South, 3.6° in the West and 1.9° in the Centre. On average for the island in 2022, the increase in *richesse* was 2.1°.

Island-wise, the *richesse* of 8.1% recorded at end of May 2022 was slightly higher than that in May 2021 by 0.2° but lower than that in May 2020 by 1.5°.

#### **4. CROP 2022**

During the month of May 2022, most sectors generally received below normal rainfall and close to normal solar radiation while the temperature amplitude was below normal. Overall, the climatic conditions were more favourable to crop growth rather than sucrose accumulation especially in the non-flowering varieties. Stalk elongation in May 2022 was higher than the normal in sectors East and Centre, slightly below normal in sectors North and South, while in the West it was well below normal. Total stalk height at the end of May 2022 was below normal in all sectors and for the island a deficit of 8.8% was recorded. Sucrose accumulation over the island in May 2022 was slightly higher than that of May 2021 but well below that of May 2020.