

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2022

13 May 2022

SUGAR CANE CROP 2022

Status: End April 2022

1. CLIMATE

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

The island's average rainfall for the month of April 2022 was 480 mm over the sugar cane areas representing 213% of the normal (225 mm). Rainfall recorded in all sectors exceeded the long-term mean (LTM) by 145 mm (114%) in the North, 252 mm (89%) in the East, 365 mm (136%) in the South, 63 mm (79%) in the West and 317 mm (118%) in the Centre.

The cumulative rainfall for the period October 2021 to April 2022 amounted to 1921 mm, representing 127% of the long-term mean for the island. During the same period, 1135 mm were recorded in the North, 2148 mm in the East, 2402 mm in the South, 880 mm in the West and 2430 mm in the Centre. These values represented 122%, 118%, 138%, 112% and 131% of the respective long-term means.

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

	North	East	South	West	Centre	Island
2021	271 (213)	558 (196)	710 (264)	251 (314)	668 (248)	527 (234)
2022	272 (214)*	536 (189)	634 (236)	143 (179)	586 (218)	480 (213)
LTM	127	284	269	80	269	225

* figures in brackets are % of LTM (1991-20)

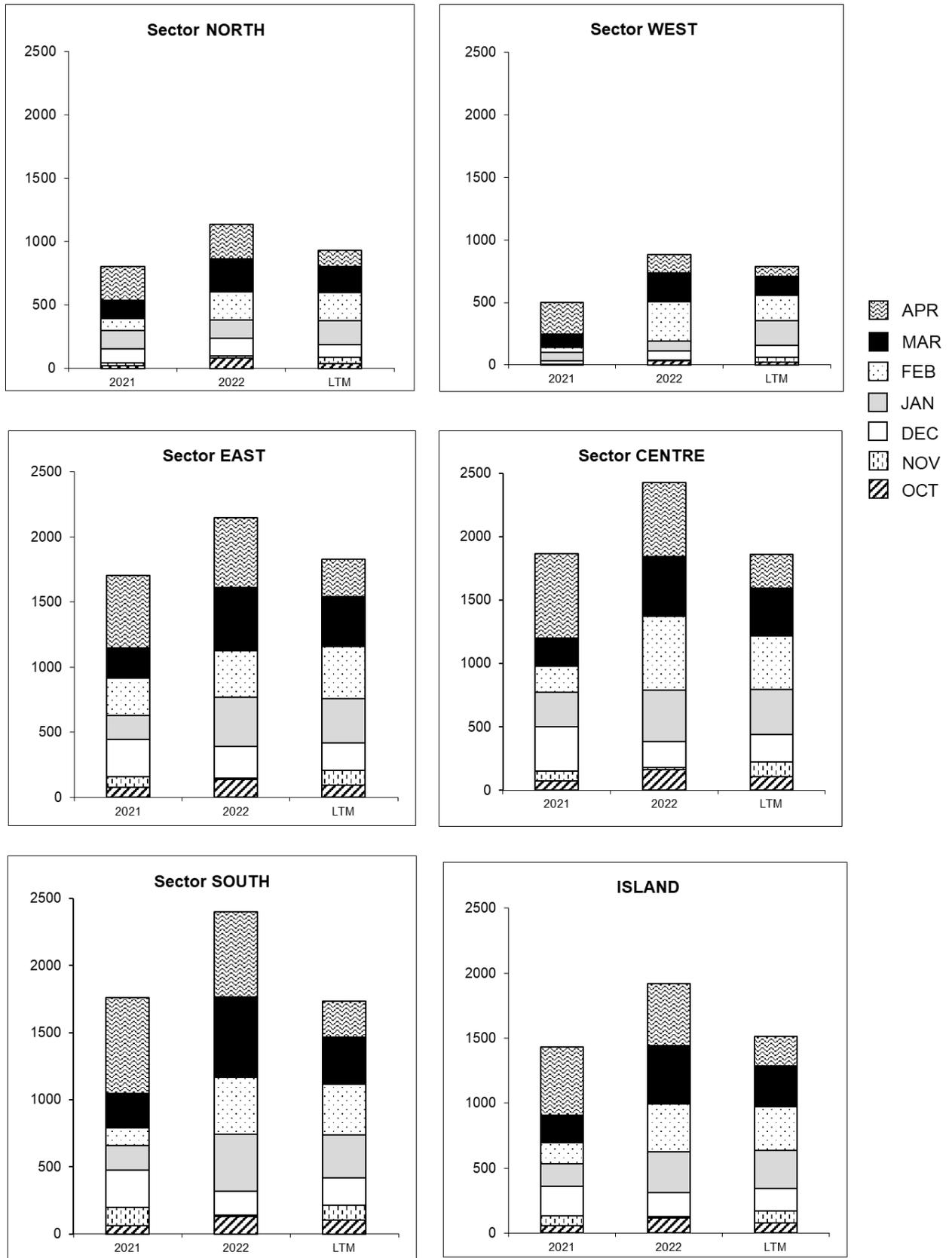
Table 1b. Cumulative rainfall (mm) from October 2021 to April 2022 for crop 2022 compared to that of crop 2021 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2021	807 (87)	1705 (93)	1758 (101)	500 (63)	1868 (100)	1433 (95)
2022	1135 (122)*	2148 (118)	2402 (138)	880 (112)	2430 (131)	1921 (127)
LTM	930	1827	1735	788	1862	1510

* figures in brackets are % of LTM

[Source: Provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October 2021 to April 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 April 2022 on MSIRI agro-meteorological stations are given below.

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

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	April 2022	DevN*	April 2022	DevN*	April 2022	DevN*
Ferret	28.7	-1.0	21.9	+0.8	6.8	-1.8
Réduit	26.1	-1.0	21.0	+0.8	5.1	-1.8
Union Park	26.0	-0.3	20.8	+0.9	5.2	-1.2
Belle Rive	27.5	-1.6	19.8	+0.7	5.3	-2.3

* Deviation from the Normal (1981-2010)

Mean maximum temperature during April 2022 was below normal by 1.0°C at both Ferret and Réduit, by 0.3°C at Union Park and by 1.6°C at Belle Rive. However, mean minimum temperature, compared to the normal, was higher at all stations ranging from 0.7°C at Belle Rive to 0.9°C at Ferret. The resulting mean amplitude lagged behind the normal by 1.8°C at both Ferret and Réduit, 1.2°C at Union Park and 2.3°C at Belle Rive. Below normal maximum temperature is not optimal for sucrose production through photosynthesis whilst lower temperature amplitudes are 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 April 2022 were below normal at all four stations. Recorded bright sunshine compared to the normal amounted to 95% at Ferret, 98% at Réduit, 77% at Union Park and 78% at Belle Rive.

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

Station	April 2022	Normal	% of Normal
Ferret	224	236	95
Réduit	209	214	98
Union Park	121	157	77
Belle Rive	148	189	78

2. STALK HEIGHT

During the last week of April 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 are compared with those of the corresponding period in April 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 April 2022 was below that recorded during the corresponding period in 2021 in all sectors except in the East where it was comparable. Elongation amounted to 28.5 cm in the North, 30.0 cm in the East, 35.7 cm in the South, 23.9 cm in the West and 21.8 cm in the Centre. The elongation rates of April 2022 were lagging behind the normal in sectors North, East, West and Centre, the difference ranging from 3.1 cm in the North to 10.0 cm in the West. In the South, the stalk elongation slightly exceeded the normal by 0.9 cm. The 30.2 cm average elongation for the island was inferior to that of April 2021 (34.0 cm) and to that of the normal (34.5 cm).

Table 4a. Stalk elongation during the month of April 2022.

Sectors	Stalk elongation (cm) during April			April 2022 as % of	
	2022	2021	Normal	2021	Normal
North	28.5	35.0	31.6	81.4	90.1
East	30.0	30.2	33.2	99.3	90.3
South	35.7	36.8	34.8	97.0	102.7
West	23.9	38.7	33.9	61.8	70.5
Centre	21.8	26.4	28.0	82.6	78.0
Island	30.2	34.0	34.5	88.9	87.4

2.2 Cumulative elongation (Table 4b)

The cumulative stalk growth from end-December 2021 to end-April 2022 amounted to 145.8 cm in the North, 162.8 cm in the East, 159.3 cm in the South, 145.8 cm in the West and 115.0 cm in the Centre. These cumulative growths compared to the same period last year were comparable for the North sector, higher in the West sector, but lower in the other three sectors. For the same period, cumulative growth was lagging behind in all sectors, with the highest deficit of 26.9 cm in the Centre and the least deficit of 2.9 cm in the South. Island-wise the cumulative elongation of 152.6 cm in April 2022 was lower than those of the 2021 crop (156.0 cm) by 2.1% and the normal (160.0 cm) by 4.6%.

Table 4b. Cumulative elongation at end-April 2022.

Sectors	Cumulative elongation (cm) at end- April			End-April 2022 as % of	
	2022	2021	Normal	2021	Normal
North	145.8	145.6	167.8	100.1	86.9
East	162.8	165.2	165.9	98.5	98.1
South	159.3	164.6	162.2	96.8	98.2
West	145.8	139.0	160.6	104.9	90.8
Centre	115.0	139.8	141.9	82.3	81.1
Island	152.6	156.0	160.0	97.9	95.4

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

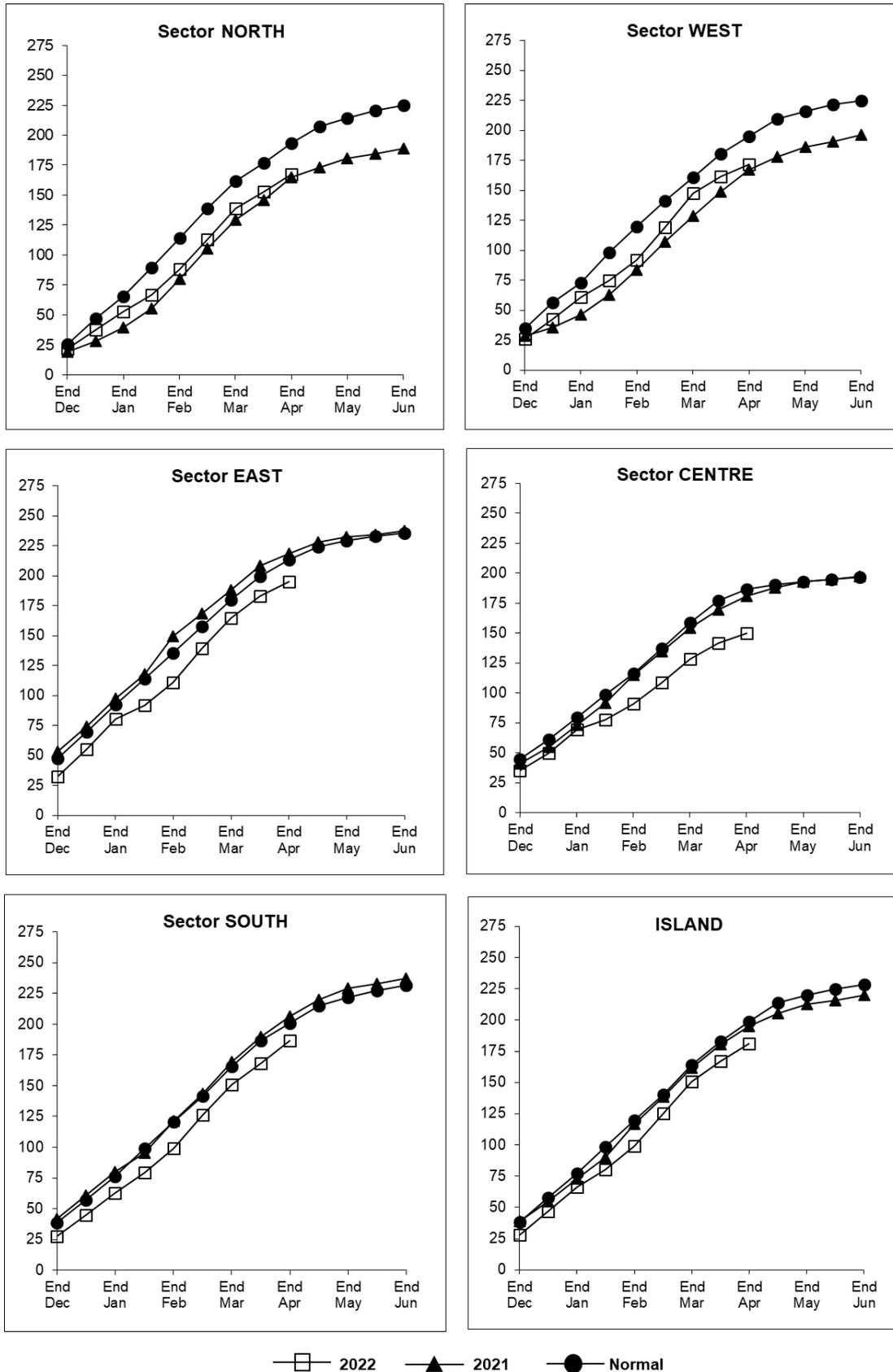
Total stalk height at end April 2022 stood at 167.7 cm in the North, 194.9 cm in the East, 186.6 cm in the South, 171.8 cm in the West and 150.1 cm in the Centre giving an island average of 181.0 cm. Compared to the corresponding period in 2021, stalk height to-date was higher in the North by 3.1 cm and in the West by 4.3 cm, but lagged behind in sectors East, South and Centre by 23.4 cm, 19.9 cm and 30.9 cm, respectively. Total stalk height at end-April 2022 was inferior than the normal by 25.6 cm in the North, 18.4 cm in the East, 14.0 cm in the South, 23.4 cm in the West and 36.8 cm in the Centre.

At island level, the total stalk height of 181.0 cm at end of April 2022 was lagging behind the corresponding period in 2021 by 14.2 cm (7.3%) and the normal by 17.4 cm (8.8 %).

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

Sectors	Stalk height (cm) at end-April			End-April 2022 as % of	
	2022	2021	Normal	2021	Normal
North	167.7	164.6	193.3	101.9	86.8
East	194.9	218.3	213.3	89.3	91.4
South	186.6	206.5	200.6	90.4	93.0
West	171.8	167.5	195.2	102.6	88.0
Centre	150.1	181.0	186.9	82.9	80.3
Island	181.0	195.3	198.4	92.7	91.2

Figure 2. Stalk height at end- April 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 April 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. On account of the lockdown imposed during April 2020 and April 2021, cane sampling could not be done during these periods. Hence, the current results were compared with those of April 2019 and April 2018.

Table 5a. Average Pol % cane (richesse) at end-April 2022.

Variety	North	East	South	West	Centre
M 52/78			8.6		9.7
M 703/89					7.8
R 573	7.9	8.0	7.4	6.6	8.4
M 2256/88	6.2	8.3			
R 575			6.2	6.5	
M 387/85		7.0	8.5		6.9
M 1246/84	3.7	5.6			
M 1989/99	4.9				
M 2283/98			6.6		
M 1176/77	6.7	7.6	6.9	6.7	7.4
M 1861/89			7.0		
M 2593/92	4.7	6.6	6.3	5.1	
M 1400/86	4.1	5.8	4.9	4.7	6.0
M 2502/99		6.0			
R 579	4.4	5.4	6.6	5.4	5.7
M 1672/90	3.7	5.0			
R 570	4.0	4.4	6.4	3.8	
M 915/05			7.2	6.8	6.3
M 683/99				5.7	
M 216/02			6.7		
M 1561/01			8.6		
M 1256/04			6.5		
M 1002/02				6.0	
M 1953/03			6.2		
M 3779/06			5.8		

Table 5b. Comparison of Pol % cane (richesse) at the end of April 2018, 2019 and 2022.

Sectors	April		
	2018	2019	2022
North	6.0	5.8	4.8
East	7.3	7.1	6.1
South	7.2	7.4	6.7
West	7.7	6.3	5.4
Centre	7.4	7.0	6.7
Island	7.0	6.9	6.0

At the end of April 2022, the *richesse* reached 4.8% in the North, 6.1% in the East, 6.7% in the South, 5.4% in the West and 6.7% in the Centre. Compared to the corresponding period in 2019, sucrose content at end-April 2022 was lagging behind by 1.0° in both the North and the East, 0.7° in the South, 0.9° in the West and 0.3° in the Centre. Sucrose content at the end of April, for the present crop, was also inferior to that of the corresponding period in 2018 in all sectors.

Island-wise, the *richesse* of 6.0% recorded at end of April 2022 was below those of the corresponding period in 2019 and 2018 by 0.9° and 1.0° respectively.

4. CROP 2022

Weather conditions that prevailed during April 2022 were characterised by above normal rainfall in all sectors of the island, with lower maximum temperature and solar radiation. These conditions did not favour optimum growth, thus resulting in an overall elongation rate that was below the normal across most of the sectors. Total stalk height over the island at the end of April 2022 was still lagging behind the normal by 8.8%.

Moreover, with a below normal temperature amplitude and solar radiation, sucrose accumulation was not optimal at the end of April 2022, with an island average *richesse* of 6.0% which is below that of the corresponding period in 2018 and 2019. As winter conditions start to set in, sucrose accumulation rate is expected to increase in the coming weeks.