

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2023

23 May 2023

SUGAR CANE CROP 2023

Status: April 2023

1. CLIMATE

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

The island's average rainfall for the month of April 2023 amounted to 164 mm and represented 73% of the long-term mean (LTM). Sector-wise, rainfall received in April 2023 was 73 mm in the North, 174 mm in the East, 193 mm in the South, 181 mm in the West and 240 mm in the Centre. These represent 57%, 61%, 72%, 226% and 89% of their respective LTM of the month.

Cumulative rainfall from October 2022 to April 2023 amounted to 1285 mm for the island, i.e. 85% of the LTM. During that period, 703 mm were recorded in the North, 1582 mm in the East, 1371 mm in the South, 1000 mm in the West and 1802 mm in the Centre. These figures were lower than their respective LTM except in the West.

Table 1a. Rainfall (mm) for the month of April for crop 2022, 2023 and the long term mean (LTM)

Crop	North	East	South	West	Centre	Island
2022	272 (214)	536 (189)	634 (236)	143 (179)	586 (218)	480 (213)
2023	73 (57)	174 (61)	193 (72)	181 (226)	240 (89)	164 (73)
LTM	127	284	269	80	269	225

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

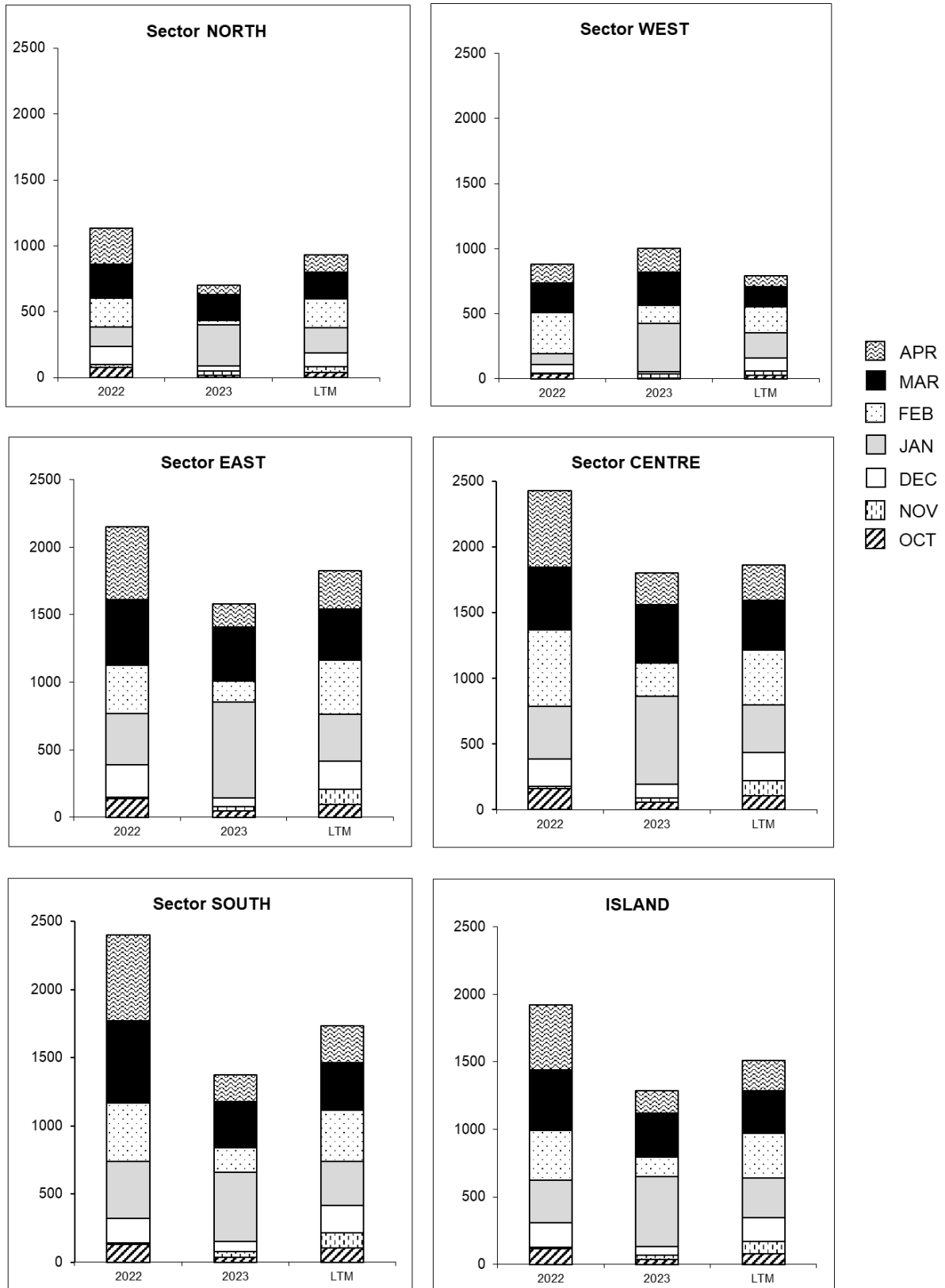
Table 1b. Cumulative rainfall (mm) from October 2022 to April 2023 for crop 2023 compared to that of crop 2022 and the LTM

Crop	North	East	South	West	Centre	Island
2022	1135 (122)	2148 (118)	2402 (138)	880 (112)	2430 (131)	1921 (127)
2023	703 (76)	1582 (87)	1371 (79)	1000 (127)	1802 (97)	1285 (85)
LTM	930	1827	1735	788	1862	1510

figures in brackets are % of LTM

[Source: Mauritius Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October 2022 to April 2023 for the 2023 crop compared to the corresponding period of the 2022 crop and to the long term mean (LTM).



1.2 Air Temperature (Table 2)

Data on air temperature and sunshine duration recorded during the month of April 2023 on the four MSIRI agro-meteorological stations are given in Table 2.

Table 2. Air temperature and sunshine hours recorded on MSIRI agro-meteorological stations in April 2023

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Apr 2023	+ / -	Apr 2023	+ / -	Apr 2023	% Normal
Ferret	30.3	+0.6	22.3	+1.2	225	96
Réduit	28.4	+1.3	20.9	+0.7	177	83
Union Park	28.2	+1.9	21.0	+1.1	178	114
Belle Rive	27.3	+0.6	20.1	+1.0	139	74

+ / - Deviation from the Normal (1991-2020)

The mean maximum temperature was above normal at all stations, the difference ranging from 0.6°C to 1.9°C. Similarly, the mean minimum temperature exceeded the normal at all stations by more than 0.7 °C. However, sunshine duration recorded during April 2023 was lagging behind the normal at all stations except at Union Park where it was higher by 14%.

2. STALK HEIGHT (Table 3a, 3b and Figure 2)

Stalk height assessment was carried out during the last week of April 2023 at 55 sites earmarked in the five sugar cane growing areas 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 April 2022 and to the normal, referred to as the mean of the five best cane yielding crops during the period 2013 to 2022.

2.1 Stalk elongation (Table 3a)

Stalk elongation during the month of April 2023 was higher than that of the same period in 2022 in all sectors.

Table 3a. Stalk elongation during the month of April 2023

Sectors	Stalk elongation (cm)			April 2023 as % of	
	April 2023	April 2022	Normal	2022	Normal
North	40.1	28.5	31.6	140.7	126.8
East	45.2	30.0	30.2	150.7	149.6
South	45.9	35.7	35.4	128.6	129.7
West	44.8	23.9	33.9	187.4	132.1
Centre	33.7	21.8	28.2	154.6	119.6
Island	43.4	30.2	31.8	143.7	136.3

During the month of April 2023, highest stalk growth was observed in the South with 45.9 cm followed by the East (45.2 cm), the West (44.8 cm), the North (40.1 cm) and the Centre (33.7 cm). The elongation rates of April 2023 exceeded the normal in the North by 8.5 cm, the East by 15.0 cm, the South by 10.5 cm, the West by 10.9 cm and the Centre by 5.5 cm. The island stalk elongation of 43.4 cm in April 2023 was higher than those of April 2022 and the normal by 13.2 cm and 11.6 cm, respectively.

2.2 Cumulative Elongation (Table 3b)

Cumulative stalk growth from end-December 2022 to end-April 2023 reached 140.2 cm in the North, 171.1 cm in the East, 180.1 cm in the South, 148.0 cm in the West and 133.3 cm in the Centre. These cumulative growths compared to the same period last year were higher in all sectors except in the North. For the same period, cumulative growth was higher than the normal in the East by 5.2 cm and in the South by 16.5 cm but lagged behind the normal in all other sectors by 27.6 cm in the North, 12.6 cm in the West and 6.7 cm in the Centre. Island-wise the cumulative elongation of 161.0 cm in April 2023 was higher than that of the 2022 crop by 8.4 cm (5.5 %) but was lower than the normal by 2.4 cm (1.5 %).

Table 3b. Cumulative elongation at end-April 2023.

Sectors	Cumulative elongation (cm) at end- April			End-April 2023 as % of	
	2023	2022	Normal	2022	Normal
North	140.2	145.8	167.8	96.2	83.6
East	171.1	162.8	165.9	105.1	103.1
South	180.1	159.3	163.6	113.1	110.1
West	148.0	145.8	160.6	101.5	92.2
Centre	133.3	115.0	140.0	115.9	95.2
Island	161.0	152.6	163.4	105.5	98.5

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

Total stalk height as at end-April 2023 was 160.6 cm in the North, 200.9 cm in the East, 214.5 cm in the South, 172.0 cm in the West and 158.5 cm in the Centre giving an island average of 188.9 cm. When compared to corresponding period of last year, stalk height to-date was higher in the East, South and Centre, comparable in the West but was lower in the North. Total stalk height at end-April 2023 as compared to the normal was higher in the South only by 13.1 cm. In the other sectors it lagged behind the normal, the difference ranging from 13.3 cm in the East to 32.7 cm in the North.

At island level, the total stalk height at end of April 2023 exceeded that of last year by 7.9 cm (4.4 %) but lagged behind the normal by 13.0 cm (6.4 %).

Table 3c. Total stalk height at end-April 2023

Sectors	Stalk height (cm) at end-April			End-April 2023 as % of	
	2023	2022	Normal	2022	Normal
North	160.6	167.7	193.3	95.8	83.1
East	200.9	194.9	214.2	103.1	93.8
South	214.5	186.6	201.4	115.0	106.5
West	172.0	171.8	195.2	100.1	88.1
Centre	158.5	150.1	184.6	105.6	85.9
Island	188.9	181.0	201.9	104.4	93.6

3.0 SUCROSE ACCUMULATION (Tables 4a and 4b)

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 2023. 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 corresponding period in 2022 and 2019.

Table 4a. Average Pol % cane (richesse) at end-April 2023.

Variety	North	East	South	West	Centre
M 52/78			9.3		7.6
R 573	6.3	8.3	7.0	6.3	7.3
M 2256/88	6.0	6.7			
R 575			6.5	5.9	
M 387/85			7.5		7.1
M 1989/99	5.7				
M 2283/98			6.5		
M 1176/77	6.3	7.7	6.5	5.9	6.7
M 1861/89			6.0		
M 2593/92	7.0	6.0	5.2	4.2	
M 1400/86	4.4	5.5		3.6	6.5
M 2502/99		5.6			
R 579	5.4	5.8	5.5	5.3	6.7
M 1672/90	4.8	5.0	5.9		
R 570	5.3	6.1	4.8	3.1	
M 915/05				4.9	6.7
M 683/99	4.3			3.2	
M 216/02	6.9		7.6		
M 1392/00		6.6	8.7		
M 3779/06			6.8		

Table 4b. Comparison of Pol % cane (richesse) at the end of April 2019, 2022 and 2023.

Sectors	April		
	2019	2022	2023
North	5.8	4.8	5.4
East	7.1	6.1	6.2
South	7.4	6.7	6.1
West	6.3	5.4	4.7
Centre	7.0	6.7	6.8
Island	6.9	6.0	5.9

At the end of April 2023, the *richesse* reached 5.4% in the North, 6.2% in the East, 6.1% in the South, 4.7% in the West and 6.8% in the Centre. Compared to the corresponding period in 2022, sucrose content at end-April 2023 was higher in the North by 0.6°, comparable in sectors East and Centre but lagged behind by 0.6° in the South and 0.7° in the West. Sucrose content at the end of April, for the present crop, was inferior to that of the corresponding period in 2019 in all sectors.

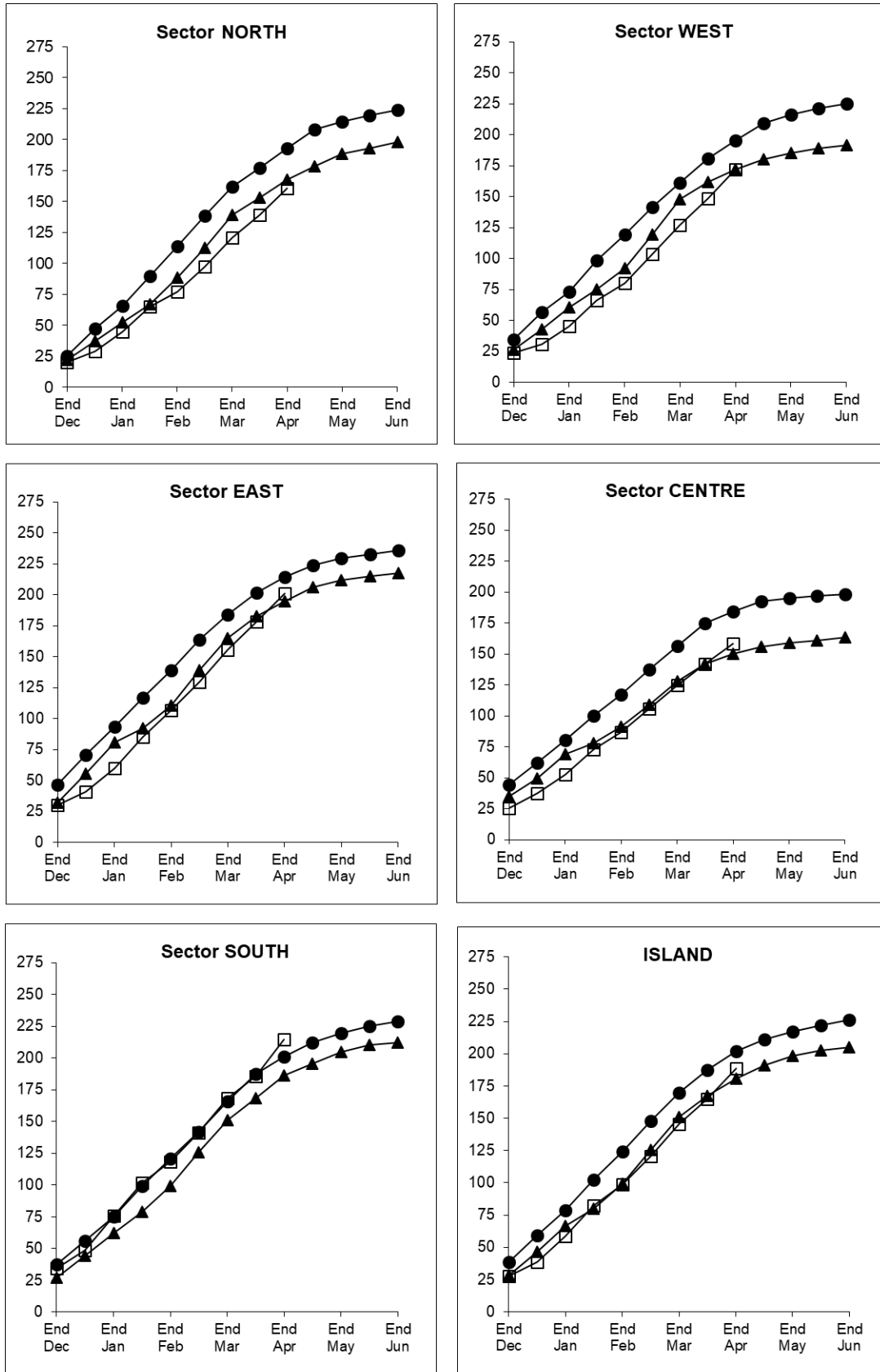
Island-wise, the *richesse* of 5.9% recorded at end of April 2023 was comparable to that of the corresponding period in 2022 but lagged behind that of 2019 by 1.0°.

4.0 CROP 2023

Apart from sector North, all other sectors received more than 170 mm of rainfall during the month of April 2023. Moreover, air temperature was generally above normal while solar radiation was below normal at most stations. The climatic conditions were conducive to crop growth and this is reflected in the stalk elongation recorded for the month of April 2023 which was higher than that of last year and the normal. The deficit in total stalk height over the island which was 14% at the end of March 2023 is now at 6% of the normal. With winter conditions setting in, no significant improvement in stalk elongation is expected.

Sucrose accumulation is at a level which is comparable to that of last year but remained below that of 2019. Sucrose accumulation rate is expected to increase in the coming weeks as winter conditions start to set in.

Figure 2. Stalk height at end-April 2023



□ 2023 ▲ 2022 ● Normal