

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2022

21 July 2022

SUGAR CANE CROP 2022

Status: End June 2022

1. CLIMATE

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

Rainfall recorded over the sugarcane areas during the month of June 2022 was above the normal with an island average of 163 mm, representing 118% of the long-term mean (LTM). Above normal rainfall was recorded in sectors East, South and Centre with 192 mm, 207 mm and 196 mm, respectively. In the North and West, the recorded 60 mm and 16 mm of rain respectively, were below the long-term mean.

The total rainfall for the period October 2021 to June 2022 amounted to 2220 mm, representing 123% of the long-term mean for the island. During the same period, 1271 mm were recorded in the North, 2514 mm in the East, 2798 mm in the South, 913 mm in the West and 2833 mm in the Centre. These values represented 117%, 115%, 134%, 107% and 127% of the respective long-term means.

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

	North	East	South	West	Centre	Island
2021	69 (103)	280 (174)	281 (177)	16 (59)	256 (149)	208 (161)
2022	60 (90)*	192 (119)	207 (130)	16 (59)	196 (114)	163 (118)
LTM	67	161	159	27	172	129

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

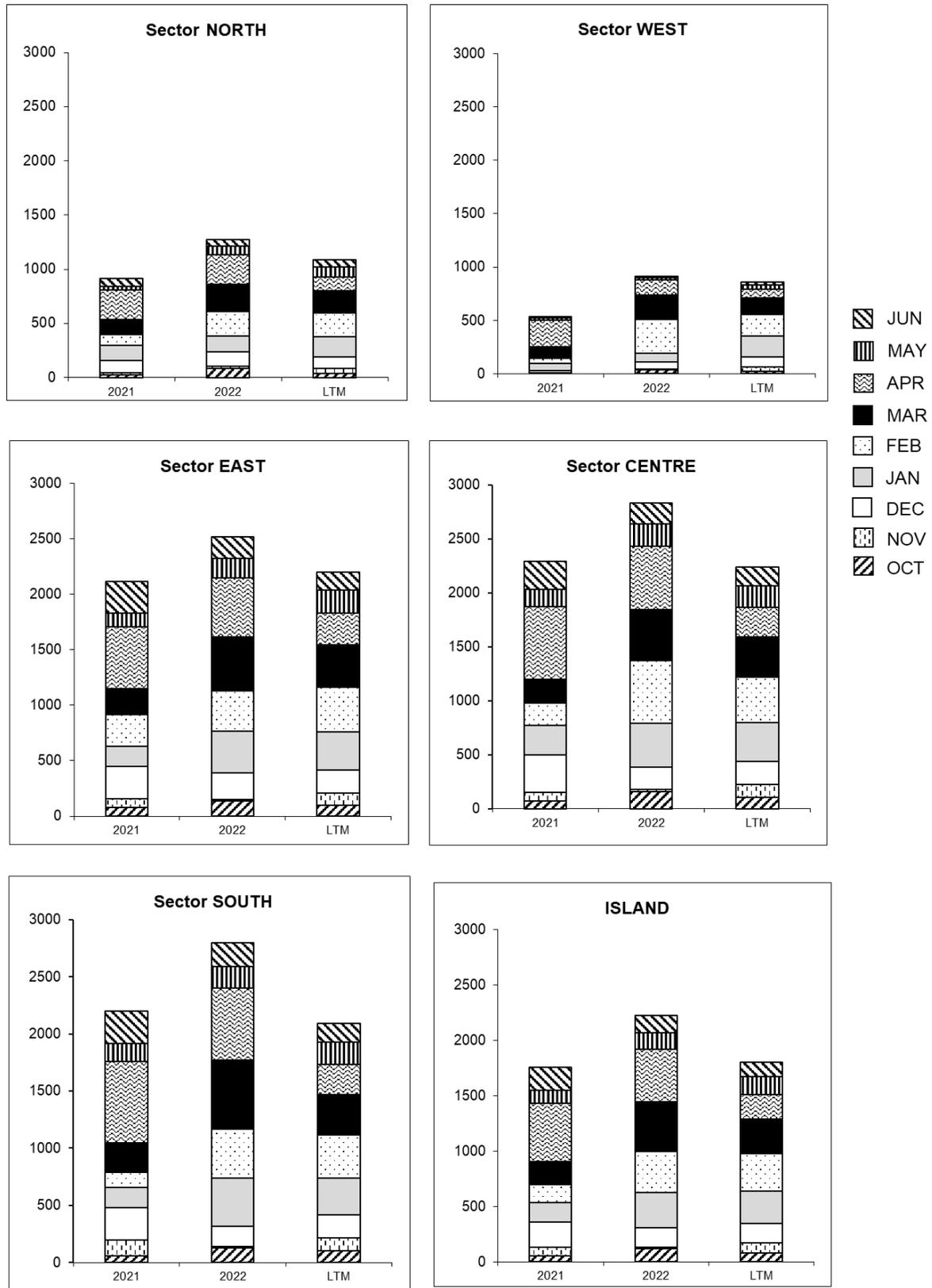
Table 1b. Cumulative rainfall (mm) from October 2021 to June 2022 for crop 2022 compared to that of crop 2021 and the long term mean (LTM).

	North	East	South	West	Centre	Island
2021	913 (84)	2111 (96)	2198 (105)	538 (63)	2290 (102)	1753 (97)
2022	1271 (117)*	2514 (115)	2798 (134)	913 (107)	2833 (127)	2220 (123)
LTM	1087	2195	2089	857	2238	1801

* figures in brackets are % of LTM

[Source: Provisional data from Meteorological Services]

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

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

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	June 2022	DevN*	June 2022	DevN*	June 2022	DevN*
Ferret	25.3	-1.0	15.7	-1.5	9.6	+0.5
Réduit	23.0	-0.5	16.2	+0.1	6.8	-0.6
Union Park	22.8	-0.1	16.9	+0.3	5.9	-0.4
Belle Rive	21.1	-2.1	15.2	-0.1	5.9	-2.0

* Deviation from the Normal (1981-2010)

Mean maximum temperature during the month of June 2022 was below normal at all four stations. The mean minimum temperature was comparable to the normal at Réduit and Belle Rive, higher at Union Park (0.3°C) and was lower at Ferret (1.5°C). The resulting mean amplitude lagged behind the normal at three stations ranging from 0.4°C at Union Park to 2.0°C at Belle Rive. Lower temperature amplitudes are generally not conducive to optimum sucrose accumulation.

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during the month of June 2022 were below normal at all stations except at Union Park where it was comparable to the normal. Recorded bright sunshine compared to the normal amounted to 95% at Ferret, 92% at Réduit, 100% at Union Park and 78% at Belle Rive.

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

Station	June 2022	Normal	% of Normal
Ferret	214	224	95
Réduit	195	212	92
Union Park	141	142	100
Belle Rive	145	186	78

2. STALK HEIGHT

During the last week of June 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 June 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 June 2022 was higher in sectors North, East and Centre, but lagged behind in the other sectors compared to those recorded during the corresponding period in 2021. Stalk elongation in June 2022 was 9.3 cm in the North, 6.1 cm in the East, 7.6 cm in the South, 6.2 cm in the West and 4.7 cm in the Centre. These figures were higher than the normal in the North and Centre, comparable in the East, but lower in the other sectors by 1.9 cm in the South and 2.6 cm in the West. The 6.6 cm average elongation for the island was inferior to that of June 2021 (7.3 cm) and also inferior to that of the normal (8.8 cm).

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

Sectors	Stalk elongation (cm) during June			June 2022 as % of	
	2022	2021	Normal	2021	Normal
North	9.3	8.4	9.0	110.7	103.1
East	6.1	5.2	6.3	117.3	96.5
South	7.6	8.0	9.5	95.0	79.7
West	6.2	10.4	8.8	59.6	70.1
Centre	4.7	3.9	3.1	120.5	152.6
Island	6.6	7.3	8.8	90.9	75.4

2.2 Cumulative elongation (Table 4b)

The cumulative stalk growth from end-December 2021 to end-June 2022 amounted to 176.0 cm in the North, 185.5 cm in the East, 185.1 cm in the South, 165.7 cm in the West and 128.4 cm in the Centre. These cumulative growths compared to the same period last year were higher in the North, comparable in the East, and lower in the other three sectors. For the same period, cumulative growth was lagging behind that of the normal in all sectors, ranging from 2.7 cm in the East and 24.8 cm in the West. Island-wise the cumulative elongation of 176.3 cm in June 2022 was lower than that of the 2021 crop (180.8 cm) by 2.5% and lower than the normal (187.6 cm) by 6%.

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

Sectors	Cumulative elongation (cm) at end- June			End-June 2022 as % of	
	2022	2021	Normal	2021	Normal
North	176.0	170.1	198.2	103.5	88.8
East	185.5	184.2	188.2	100.7	98.6
South	185.1	195.5	190.8	94.7	97.0
West	165.7	168.7	190.5	98.2	87.0
Centre	128.4	156.0	153.1	82.3	83.9
Island	176.3	180.8	187.6	97.5	94.0

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

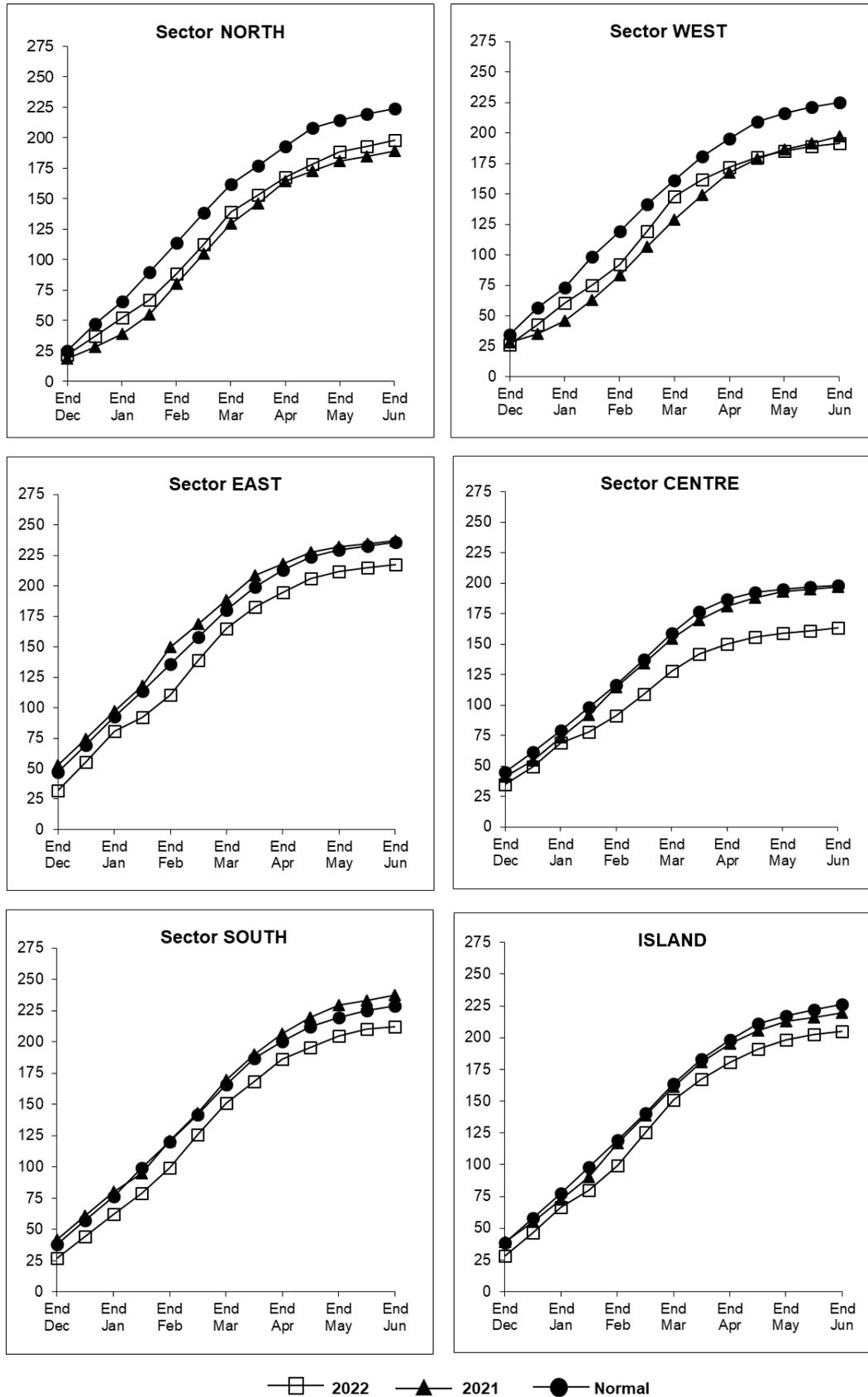
Total stalk height at end-June 2022 stood at 197.9 cm in the North, 217.6 cm in the East, 212.4 cm in the South, 191.7 cm in the West and 163.5 cm in the Centre giving an island average of 205.3 cm. Compared to the corresponding period in 2021, stalk height at end-June 2022 was higher in the North only by 8.8 cm, but lagged behind in the other sectors by 19.7 cm in the East, 25.0 cm in the South, 5.5 cm in the West and 33.7 cm in the Centre. Total stalk height at end-June 2022 was inferior to that of the normal in all sectors, the difference ranging from 16.7 cm in the South to 34.7 cm in the Centre.

The total stalk height of 205.3 cm at end of June 2022 for the island was lagging behind the corresponding period in 2021 by 14.6 cm (6.7%) and the normal by 20.8 cm (9.2 %).

Table 4c. Total stalk height at end-June 2022.

Sectors	Stalk height (cm) at end-June			End-June 2022 as % of	
	2022	2021	Normal	2021	Normal
North	197.9	189.1	223.7	104.7	88.5
East	217.6	237.3	235.6	91.7	92.3
South	212.4	237.4	229.1	89.5	92.7
West	191.7	197.2	225.1	97.2	85.2
Centre	163.5	197.2	198.2	82.9	82.5
Island	205.3	219.9	226.0	93.3	90.8

Figure 2. Stalk height at end-June 2022.



3.0 SUCROSE ACCUMULATION (Tables 5a and 5b)

Cane samples (clean canes) from miller-planters' land, in all factory areas and covering the main cultivated varieties, were analysed for sucrose content during the last week of June 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-June 2022.

Variety	Harvest Date *	North	East	South	West	Centre
M 52/78	E			11.7		13.1
R573	E, M	12.5	11.8	12.3	11.1	10.8
M 2256/88	E, M	11.9	13.0			
R575	E, M			13.5	13.2	
M 387/85	E, M		12.6	11.8		10.7
M 1246/84	M, L	9.7	9.6			
M 1989/99	M, L	8.4				
M 2283/98	M, L			11.2		
M 1176/77	M	10.6	12.3	10.3	11.6	10.6
M 1861/89	M, L			10.2		
M 2593/92	M/L	10.7	11.1	10.9	10.5	
M 1400/86	M	9.6	10.5	9.8	9.7	9.8
M 2502/99	M		10.5			
R579	L	9.5	9.6	9.2	10.6	9.1
M 1672/90	M, L	8.9	9.1			
R570	M, L	9.3	9.5	10.2	10.5	
M 915/05	M, L	9.0		9.5	12.1	10.2
M 683/99	M, L	8.2			10.6	
M 216/02	E, M	11.0		11.4		
M 1561/01	E, M			10.5		
M 1256/04	M			9.9		
M 1002/02	M, L	9.3			10.7	
M 64	M, L			10.7		
M 1392/00	E, M	9.6				

* 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 and June 2020, 2021 and 2022.

Sectors	May			June		
	2020	2021	2022	2020	2021	2022
North	10.0	6.3	7.1	11.8	9.9	10.0
East	9.2	8.5	8.4	10.3	10.3	10.6
South	9.5	8.5	8.1	10.8	10.4	10.3
West	9.7	6.9	9.0	11.1	10.0	10.9
Centre	9.8	9.2	8.6	10.0	9.8	9.8
Island	9.6	7.9	8.1	10.8	10.2	10.4

The *richesse* at the end of June 2022 was 10.0% in the North, 10.6% in the East, 10.3% in the South, 10.9% in the West and 9.8% in the Centre. Compared to the corresponding period in 2021, *richesse* at end-June 2022 was comparable in sectors North, South and Centre but higher by 0.3° in the East and 0.9° in the West. Sucrose content at the end of June for the present crop, was lower than that of the corresponding period in 2020 in all sectors except in the East.

Sucrose content has improved in all sectors from end-May 2022 up to end-June 2022. The highest increment of 2.9° was observed in the North followed by 2.2° in the East and South, 1.9° in the West and 1.2° in the Centre. On average for the island, the increase in *richesse* was 2.3° in 2022 which was similar to that obtained in 2021 but was higher than the 1.2° for the corresponding period in 2020.

Island-wise, the *richesse* of 10.4% recorded at end of June 2022 was slightly higher than that in June 2021 by 0.2° but lower than that in June 2020 by 0.4°.

4. CROP PRODUCTIVITY 2022

As at 9 July 2022, 1996 ha representing about 7.4% of miller-planters' land was harvested compared to 1352 ha (4.8%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 8.3% in the North, 11.2% in the East, 2.5% in the South, 6.1% in the West and 12.7 % in the Centre. An analysis of cane productivity based on the harvest statistics for miller-planters follows.

4.1 Crop productivity 2022 (Table 6)

Cane productivity for the island as at 9 July 2022 amounted to 71.7 TCH and was slightly higher than that recorded in 2021 (71.0 TCH) but lower than the 77.1 TCH recorded in 2020.

Table 6. Crop productivity as at 9 July for crop 2022 as compared to the corresponding period for 2020 and 2021 crops.

Sector	Cane Productivity (TCH)			Extraction (%)			Sugar Productivity (TSH)		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
North	72.7	76.3	73.5	8.70	7.69	9.22	6.32	5.86	6.77
East	78.9	76.3	77.2	9.05	8.46	8.57	7.14	6.46	6.61
South	78.8	-	64.0	9.28	-	9.27	7.31	-	5.93
West	94.2	58.1	69.3	9.14	7.22	9.05	8.61	4.19	6.27
Centre	66.2	59.1	56.1	8.90	8.17	8.67	5.89	4.83	4.86
Island	77.1	71.0	71.7	9.11	8.37	8.87	7.02	5.95	6.36

Sector-wise, the cane productivity to-date was 73.5 TCH in the North, 77.2 TCH in the East, 64.0 TCH in the South, 69.3 TCH in the West and 56.1 TCH in the Centre. Compared to the same period last year, cane productivity recorded to-date was lagging behind in sectors North and Centre by 2.8 TCH and 3.0 TCH, respectively. In the other sectors, it was slightly higher in the East by 0.9 TCH and higher by 11.2 TCH in the West.

The recorded island extraction rate of 8.87% was higher than that of the corresponding period in 2021 (8.37%) by 0.5%. Sector-wise, the extraction rate recorded was 9.22% in the North, 8.57% in the East, 9.27% in the South, 9.05% in the West and 8.67% in the Centre. These figures were higher than that of the corresponding period in 2021 in all sectors.

Island-wise, the recorded sugar productivity of 6.36 TSH exceeded that of the corresponding period in 2021 (5.95 TSH) by 0.41 tonne. The sugar productivity was higher in all sectors as compared to those at the corresponding period in 2021. Sugar productivity as at 9 July 2022 was lagging behind that of the corresponding period in 2020 in all sectors except in the North.

5. CROP 2022

Climatic conditions that prevailed during the month of June 2022 were characterised by abundant rainfall in sectors East, South and Centre while the other sectors recorded below normal rainfall. Day maximum temperature recorded at MSIRI stations was below the normal while night minimum temperature was close to or higher than the normal, except at Ferret. The resulting temperature amplitude was below normal at most stations. Moreover, the sky during the month of June 2022 was cloudy, as indicated by the below normal sunshine duration. Overall, the climatic conditions were not conducive for growth nor to optimum sucrose accumulation. These are reflected in the stalk elongation recorded at island level at the end of June 2022, which was 75.4% of the normal and total stalk height lagging behind the normal by 9%. The sucrose content recorded over the island at the end of June 2022 was slightly higher than that of June 2021 and lower than that of June 2020.

Harvest has not covered extensive areas yet, with only about 7% of miller planters' land. Based on these harvest statistics, the overall tendency observed over the island as compared to 2021 was a slightly higher cane productivity and higher extraction rate resulting in higher sugar productivity. However, cane productivity, extraction and sugar productivity in June 2022 were inferior to figures recorded in June 2020.