

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2022

Status: November 2022 and Final Cane Production

1. CLIMATE

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

Rainfall recorded over the island during November 2022 was 34 mm representing 37% of the long-term mean (LTM, 91 mm) for the month. Rainfall recorded in all sectors was well below the LTM with 29 mm in the North, 33 mm in the East, 39 mm in the South and 34 mm in both the West and Centre. November 2022 was a dry month and the crop water requirements were not fulfilled in all sectors except in areas benefiting from sufficient irrigation.

Cumulative rainfall for the months of October and November 2022 amounted to 69 mm for the island, i.e. 40% of the LTM. During that period, 49 mm were recorded in the North, 81 mm in the East, 75 mm in the South, 36 mm in the West and 93 mm in the Centre. These represented 57%, 39%, 35%, 59% and 42% of the respective LTM.

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

	North	East	South	West	Centre	Island
2022	20 (43)	12 (11)	12 (11)	1 (3)	15 (13)	13 (14)
2023	29 (62)*	33 (30)	39 (34)	34 (89)	34 (29)	34 (37)
LTM	47	109	114	38	116	91

+ Crop year is from October to September

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

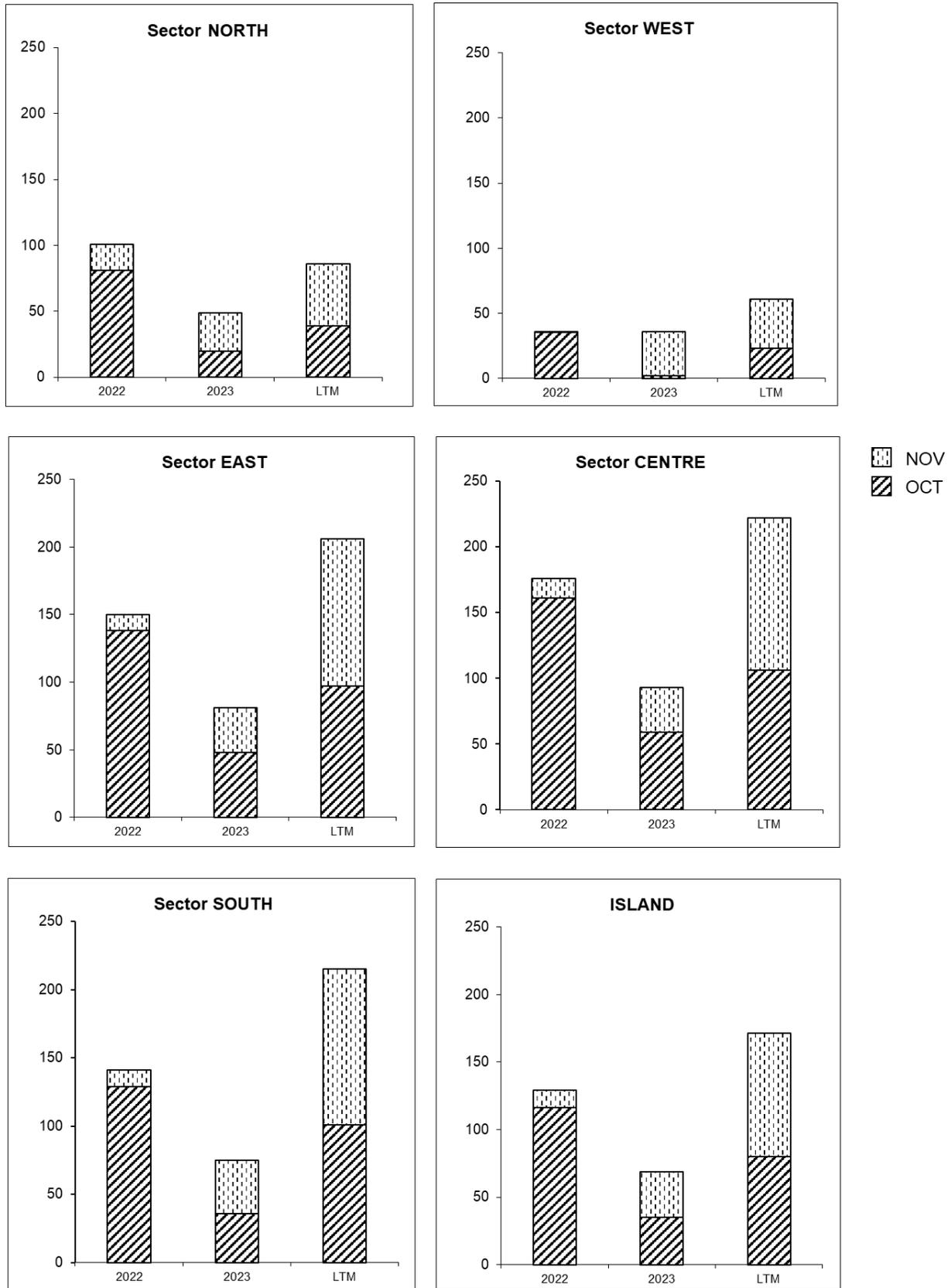
Table 1b. Cumulative rainfall (mm) from October to November 2022 for crop 2023 compared to that of crop 2022 and the LTM

	North	East	South	West	Centre	Island
2022	101 (117)*	150 (73)	141 (66)	36 (59)	176 (79)	129 (75)
2023	49 (57)*	81 (39)	75 (35)	36 (59)	93 (42)	69 (40)
LTM	86	206	215	61	222	171

* figures in brackets are % of LTM

[Source: Mauritius Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October and November 2022 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 November 2022 on four MSIRI agro-meteorological stations are compiled in Table 2.

Table 2. Air temperature and sunshine hours recorded on MSIRI agro-meteorological stations in November 2022

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Nov 2022	DevN*	Nov 2022	DevN*	Nov 2022	% Normal
Ferret	29.0	-1.0	18.0	-1.6	275	108
Réduit	27.2	+0.2	17.4	-1.0	250	101
Union Park	26.2	+0.3	18.0	-0.2	231	116
Belle Rive	25.3	-0.6	16.5	-0.7	193	94

* Deviation from the Normal (1991-2020)

Mean maximum temperature during November 2022 was higher than the normal at Réduit and Union Park, but lagged behind the normal at the other two stations. The mean minimum temperature in November 2022 was below the normal at all stations. Sunshine duration recorded in November 2022 were above normal at all stations except at Belle Rive.

1.3 Crop Water Satisfaction Index during Crop 2022 (Table 3)

The Crop Water Satisfaction (CWS) is expressed as a percentage of the amount of evapotranspiration actually effected by the crop compared to the potential amount that the crop could have lost in a given soil and climatic condition. The analysis of CWS is a good complement to the analysis of the other climatic variables for the different sectors. The use of CWS is more meaningful when computed on a daily basis over the whole crop cycle (12 months).

For crop 2022, CWS was computed from daily rainfall and pan evaporation data for the humid L soil at Réduit and the sub-humid L soil at Ferret. The CWS was computed for the early-harvested crop (from July 2021 to August 2022), the middle-harvested crop (from October 2021 to September 2022) and the late-harvested crop (from December 2021 to November 2022).

Table 3. Crop water satisfaction (%) for L soil at Réduit and Ferret during crop 2022

Location	Early harvest	Middle harvest	Late harvest
Réduit, humid	59	55	42
Ferret, sub-humid	69	67	55

The CWS was over 50% in most of the harvest cycle at both sites except for the late-harvest crop at Réduit where it was 42%. In the early-harvest crop at both sites, the crop suffered water stress only in the month of November 2021 where the CWS was around 10%. For the middle-harvest crop, CWS was below 10% in September 2022 at both sites and in August 2022 at Réduit. The late-harvest crop suffered water stress during the months of September to November 2022 with CWS below 10%. This dry regime was conducive to sucrose accumulation and extraction rate.

2.0 CROP PRODUCTIVITY 2022

As at 26 November 2022, 25 979 ha representing about 97% of corporate-planters' land was harvested compared to 23 523 ha (84%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 95% in the North, 96% in the East, 98% in the West and 96% in the Centre. Harvest has already been completed in the South. An analysis of cane productivity based on the harvest statistics for miller-planters follows.

2.1 Cane productivity (Table 4a)

At the end of November 2022, cane productivity for the island stood at 63.5 TCH and lagged behind that of the corresponding period in 2021 (69.4 TCH) by 5.9 TCH and that of November 2020 (65.2 TCH) by 1.7 TCH. Sector-wise, cane productivity recorded was 67.3 TCH in the North, 63.3 TCH in the East, 63.1 TCH in the South, 69.9 TCH in the West and 40.6 TCH in the Centre. Cane productivity recorded to-date was inferior to that of last year in the North by 2.8 TCH, East by 8.5 TCH, South by 9.6 TCH and Centre by 11.7 TCH, but was higher by 5.7 TCH in the West. Similarly, it was inferior in all sectors when compared to those in November 2020 except in the West.

Table 4a. Cane productivity (TCH) as at end October and end November for the 2020, 2021 and 2022 crops

Sector	End October			End November		
	2020	2021	2022	2020	2021	2022
North	70.8	70.7	68.4	67.7	70.1	67.3
East	68.2	72.8	63.7	66.8	71.8	63.3
South	67.9	73.2	63.6	67.0	72.7	63.1
West	65.4	65.2	69.1	64.4	64.2	69.9
Centre	50.9	53.9	41.1	45.2	52.3	40.6
Island	67.1	70.2	64.0	65.2	69.4	63.5

2.2 Extraction rate (Table 4b, Figure 2)

The island extraction rate recorded at end November 2022 was 10.50% and it was higher than that of the corresponding period in 2021 (9.64%) and 2020 (10.44%). Sector-wise, the extraction rate recorded was 11.18% in the North, 9.92% in the East, 10.46% in the South, 10.94% in the West and 9.15% in the Centre. Compared to the corresponding period last year, extraction rate to-date was higher in all sectors by 1.26° in the North, 0.65° in the East, 0.84° in the South, 0.54° in the West and 0.20° in the Centre. Extraction rate in November 2022 lagged behind that of November 2020 in sectors North, East and Centre, was comparable in the West and higher in the South.

Table 4b. Extraction rate (%) as at end October and end November for crops 2020, 2021 and 2022

Sectors	End October			End November		
	2020	2021	2022	2020	2021	2022
North	11.36	9.75	10.84	11.48	9.92	11.18
East	10.04	9.23	9.86	10.02	9.27	9.92
South	10.18	9.47	10.46	10.16	9.62	10.46
West	10.91	10.28	10.92	10.97	10.40	10.94
Centre	9.54	8.87	9.14	9.51	8.95	9.15
Island	10.41	9.53	10.39	10.44	9.64	10.50

2.3 Sugar productivity (Table 4c)

At the end of November 2022 sugar productivity over the island was 6.67 TSH and was comparable to that at the corresponding period in 2021 (6.69 TSH) but lower than that in November 2020.

Table 4c. Sugar productivity (TSH) as at end October and end November for crops 2020, 2021 and 2022

Sectors	End October			End November		
	2020	2021	2021	2020	2021	2022
North	8.04	6.89	7.41	7.77	6.95	7.52
East	6.85	6.72	6.28	6.69	6.66	6.28
South	6.91	6.93	6.65	6.81	6.99	6.60
West	7.14	6.70	7.55	7.06	6.68	7.65
Centre	4.86	4.78	3.76	4.30	4.68	3.71
Island	6.99	6.69	6.65	6.81	6.69	6.67

The recorded sugar productivity in the different sectors was 7.52 TSH in the North, 6.28 TSH in the East, 6.60 TSH in the South, 7.65 TSH in the West and 3.71 TSH in the Centre. Compared to November 2021, sugar productivity to-date was higher by 0.57 TSH in the North and 0.97 TSH in the West but lagged behind in the other sectors by 0.38 TSH in the East, 0.39 TSH in the South and 0.97 TSH in the Centre. Sugar productivity in November 2022 were inferior to those obtained in November 2020 in all sectors except in the West.

3. CROP 2022

The weather recorded during November 2022 was dry in all sectors with generally above normal sunshine duration while maximum temperature was below normal at two out of 4 stations. Cane productivity recorded at end November 2022 was lower than that at the same period in 2021 with a deficit of 5.9 TCH at island level. However, the extraction rate over the island in November 2022 was higher by almost 9% compared to that of last year resulting in a sugar productivity at island level being slightly below that of last year. As at 26 November 2022, total sugar produced amounted to 227,716 tonnes and the sugar production forecast of 235,000 tonnes can be achieved with the completion of harvest in the remaining sectors.

The harvest season 2022 ended in the first week of December with a total of 2,255,046 t of cane milled in the three factories with 687,241 t at Terra, 824,891 t at Alteo and 742,914 t at Omnicane.

4. CROP 2023

A dry regime as experienced in October and November 2022 may have caused some water stress in fields harvested earlier during the season and under rainfed conditions. Appropriate fertilization and weed control practices should be adopted for the good development of the new crop as soon as more favourable weather conditions prevail.

Figure 2. Evolution of extraction rate on miller-planters' land for crops 2020, 2021 and 2022.

