

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2023

13 June 2023

### SUGAR CANE CROP 2023

**Status: January 2023**

#### 1. CLIMATE

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

Rainfall recorded over the sugar cane growing areas of the island in January 2023 was 522 mm and represented 179% of the long-term mean (LTM, 292 mm) for the month. Rainfall received was above the long-term mean, with 316 mm in the North, 711 mm in the East, 507 mm in the South, 372 mm in the West and 666 mm in the Centre. Most of the rainfall occurred during the torrential rainfall events in the last week of January 2023.

Cumulative rainfall from October 2022 to January 2023 amounted to 652 mm for the island, i.e. 102% of the LTM. During that period, 403 mm were recorded in the North, 853 mm in the East, 658 mm in the South, 425 mm in the West and 862 mm in the Centre. These figures were higher than their respective LTM except for sector South.

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

Crop	North	East	South	West	Centre	Island
<b>2022</b>	145 (76)	378 (110)	423 (131)	79 (41)	405 (113)	317 (109)
<b>2023</b>	<b>316</b> (165)	<b>711</b> (207)	<b>507</b> (156)	<b>372</b> (191)	<b>666</b> (186)	<b>522</b> (179)
<b>LTM</b>	191	344	324	195	359	292

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

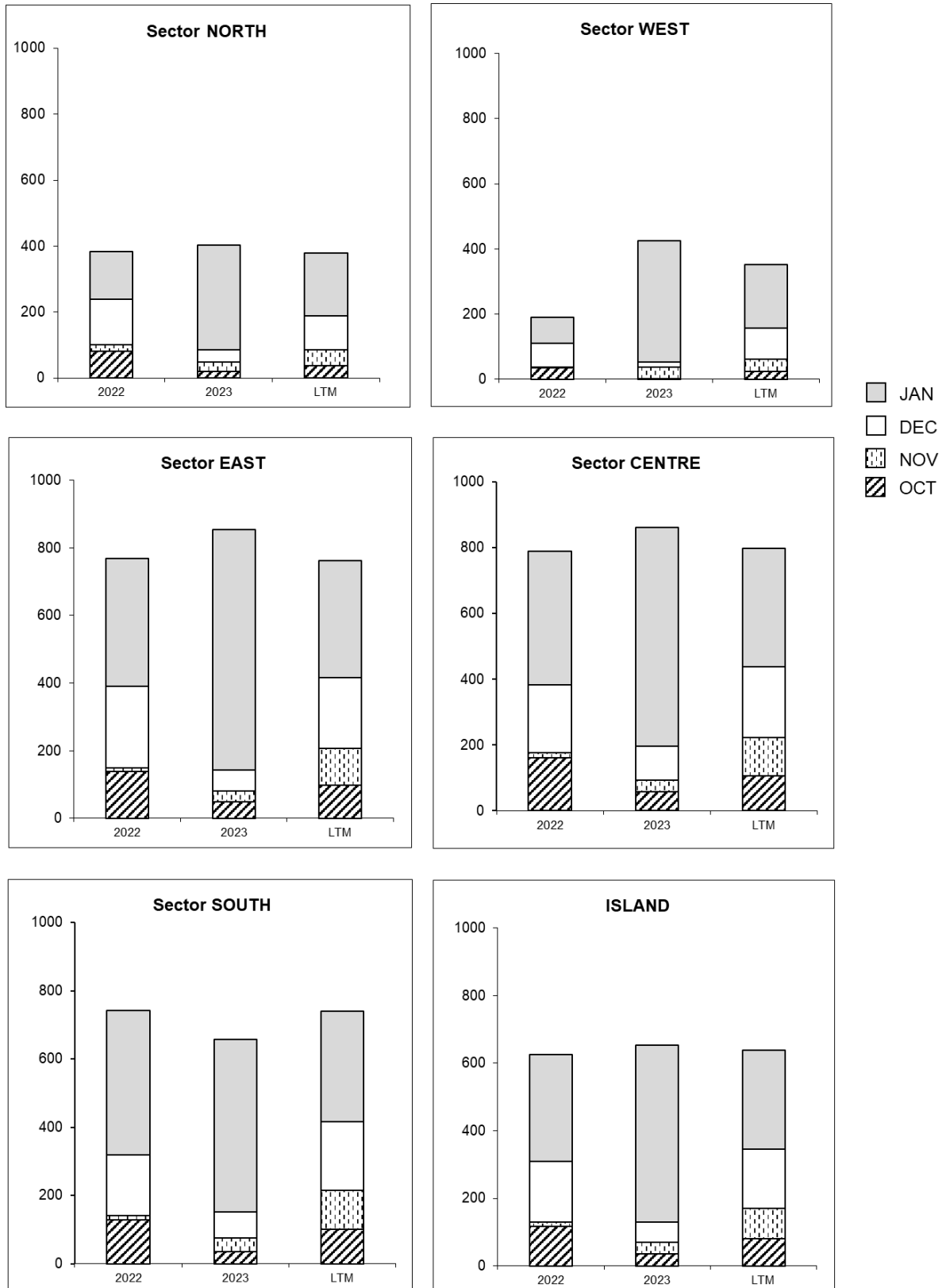
**Table 1b. Cumulative rainfall (mm) from October 2022 to January 2023 for crop 2023 compared to that of crop 2022 and the LTM**

Crop	North	East	South	West	Centre	Island
<b>2022</b>	384 (101)	768 (101)	741 (100)	189 (54)	789 (99)	626 (98)
<b>2023</b>	<b>403</b> (106)	<b>853</b> (112)	<b>658</b> (89)	<b>425</b> (121)	<b>862</b> (108)	<b>652</b> (102)
<b>LTM</b>	379	761	740	352	797	637

figures in brackets are % of LTM

[Source: Mauritius Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2022 to January 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 January 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 January 2023**

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Jan 2023	+ / -	Jan 2023	+ / -	Jan 2023	% Normal
Ferret	30.1	-1.2	22.0	-0.4	181	78
Réduit	27.9	-0.7	20.9	-0.6	185	81
Union Park	27.6	-0.4	20.9	-0.1	158	86
Belle Rive	26.1	-1.6	19.5	-0.7	120	65

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

The mean maximum temperature was below normal at all four stations, the differences ranging from 0.4 °C at Union Park to 1.6 °C at Belle Rive. The mean minimum temperature was comparable to the normal at Union Park but lower than the normal at the other stations. Moreover, the sunshine duration recorded during January 2023 was below the normal representing 78% of the normal at Ferret, 81% at Réduit, 86% at Union Park and 65% at Belle Rive.

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

Stalk height was measured during the last week of January 2023 at the 55 sites earmarked in the five sugar cane sectors of the island. These selected sites are representative of the various agro-climatic zones, varieties and crop categories. The measurements were compared to those of the corresponding period in January 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 January 2023 was 24.5 cm in the North, 29.6 cm in the East, 41.2 cm in the South, 21.3 cm in the West and 27.7 cm in the Centre. These growth values were inferior to those recorded at the same period in 2022 in all sectors except in the South. Compared to the normal for the corresponding period, growth was higher in the South by 3.6 cm, but lagged behind the normal in the other sectors by 15.5 cm in the North, 17.2 cm in the East, 17.4 cm in the West and 8.4 cm in the Centre.

The island stalk elongation of 30.8 cm in January 2023 was lower than that of January 2022 by 7.3 cm and the normal by 9.8 cm.

**Table 3a. Stalk elongation during the month of January 2023**

Sectors	Stalk elongation (cm) during January 2023			January 2023 as % of	
	2023	2022	Normal	2022	Normal
North	24.5	30.8	40.0	79.5	61.3
East	29.6	48.4	46.8	61.2	63.3
South	41.2	35.2	37.6	117.0	109.5
West	21.3	34.7	38.7	61.4	55.1
Centre	27.7	34.2	36.1	81.0	76.7
<b>Island</b>	<b>30.8</b>	<b>38.1</b>	<b>40.6</b>	<b>80.8</b>	<b>75.9</b>

## 2.2 Total stalk height (Table 3b and Figure 2)

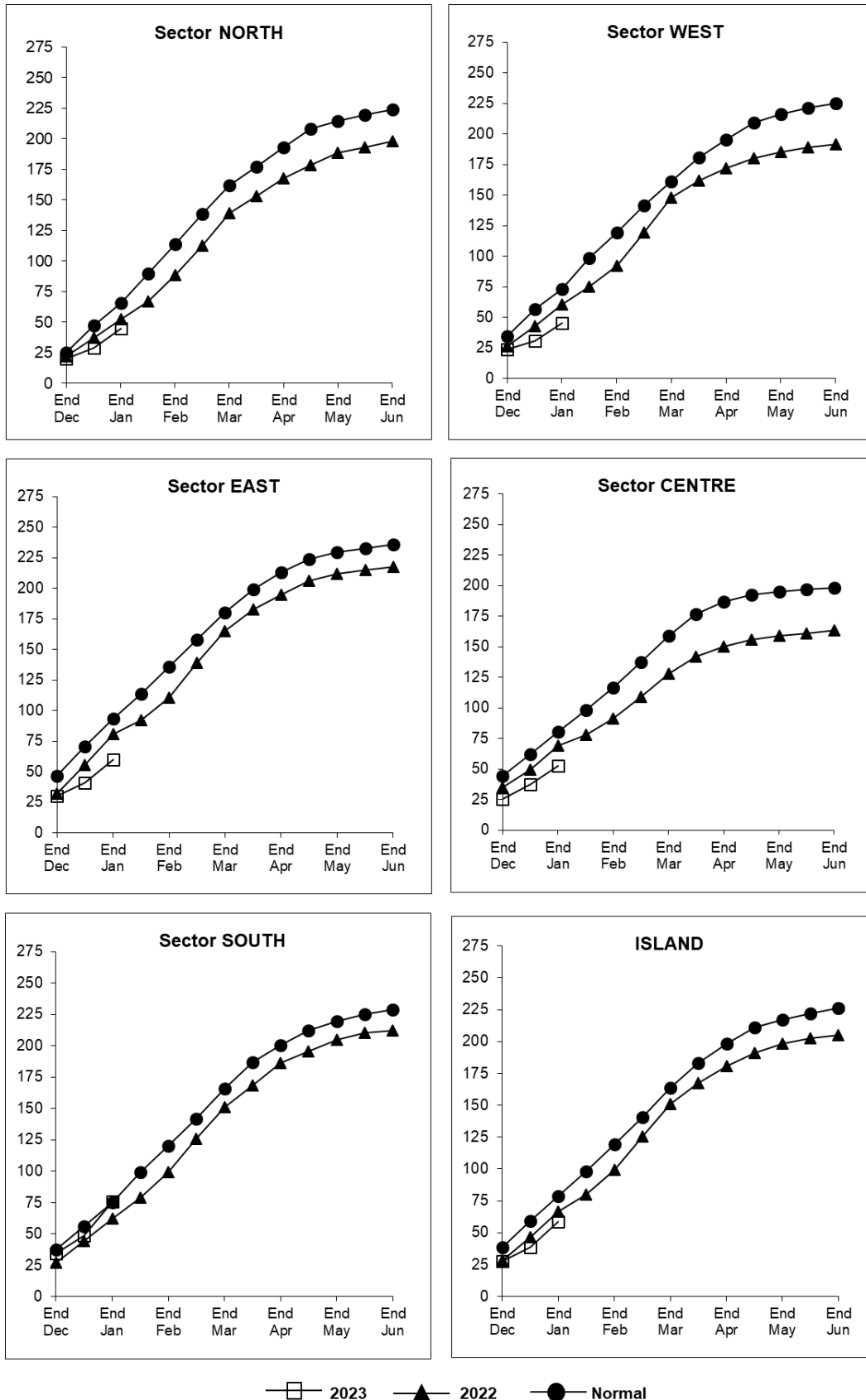
At end-January 2023, total stalk height reached 44.9 cm in the North, 59.4 cm in the East, 75.6 cm in the South, 45.3 cm in the West and 52.9 cm in the Centre giving an island average of 58.7 cm. When compared to end-January 2022, stalk height to-date was lower by 7.8 cm in the North, 21.1 cm in the East, 15.4 cm in the West and 16.4 cm in the Centre. In the South, it was higher by 13.1 cm. Total stalk height at end-January 2023 was comparable to the normal in the South sector, but lagged behind in the other sectors by 20.6 cm in the North, 33.7 cm in the East, 27.9 cm in the West and 27.7 cm in the Centre.

At island level, the total stalk height of 58.7 cm at end of January 2023 was shorter than that of last year by 7.7 cm and the normal by 20.3 cm.

**Table 3b. Total stalk height at end-January 2023**

Sectors	Stalk height (cm) at end-January 2023			End-January 2023 as % of	
	2023	2022	Normal	2022	Normal
North	44.9	52.7	65.5	85.2	68.6
East	59.4	80.5	93.1	73.8	63.8
South	75.6	62.5	75.4	121.0	100.2
West	45.3	60.7	73.2	74.6	61.9
Centre	52.9	69.3	80.6	76.3	65.6
<b>Island</b>	<b>58.7</b>	<b>66.4</b>	<b>79.0</b>	<b>88.5</b>	<b>74.3</b>

**Figure 2. Stalk height at end-January 2023**



### **3.0 CROP 2023**

Although rainfall during January 2023 exceeded the normal in almost all sectors, most of the rainfall occurred in the last week of the month. Air temperature and solar radiation recorded during the same period was below normal. The lack of sunshine duration coupled with below normal maximum temperature were not favourable for optimum photosynthesis and crop growth. This is apparent from the elongation data recorded at end-January 2023, which lagged behind the normal in all sectors except in the South. Total stalk height over the island at end-January 2023 was 74% of the normal. Nevertheless, the deficit in growth could improve until the end of the season, provided that favourable climatic conditions prevail and assuming that optimal cultural practices are adopted and maintained.