

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2019

Status: End January 2019

1. CLIMATE

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

Rainfall recorded over the sugar cane area of the island in January 2019 was 294 mm and represented 109% of the long-term mean (LTM). January rainfall exceeded the long-term mean (LTM) in sectors North and South by 10 mm and 111 mm, respectively. In the other sectors, below normal rainfall was recorded with 301 mm in the East, 113 mm in the West and 265 mm in the Centre.

The cumulative rainfall for the period October 2018 to January 2019 amounted to 544 mm in the North, 953 mm in the East, 977 mm in the South, 407 mm in the West and 936 mm in the Centre. These figures represented 142%, 128%, 130%, 120% and 130% of the respective long-term mean. The island's average rainfall of 821 mm for this period represented 131% of the long-term mean (628 mm).

All regions over the island had deficient rainfall during the first half of January 2019 and 85% of the total rainfall over the island occurred during the second fortnight of the month.

Table 1a. Rainfall (mm) for the month of January for crops 2018, 2019 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2018	672 (378)	972 (314)	735 (240)	512 (275)	1050 (324)	796 (295)
2019	188 (106)*	301 (97)	417 (136)	113 (61)	265 (82)	294 (109)
LTM	178	310	306	186	324	270

* figures in brackets are % of LTM (1981-10)

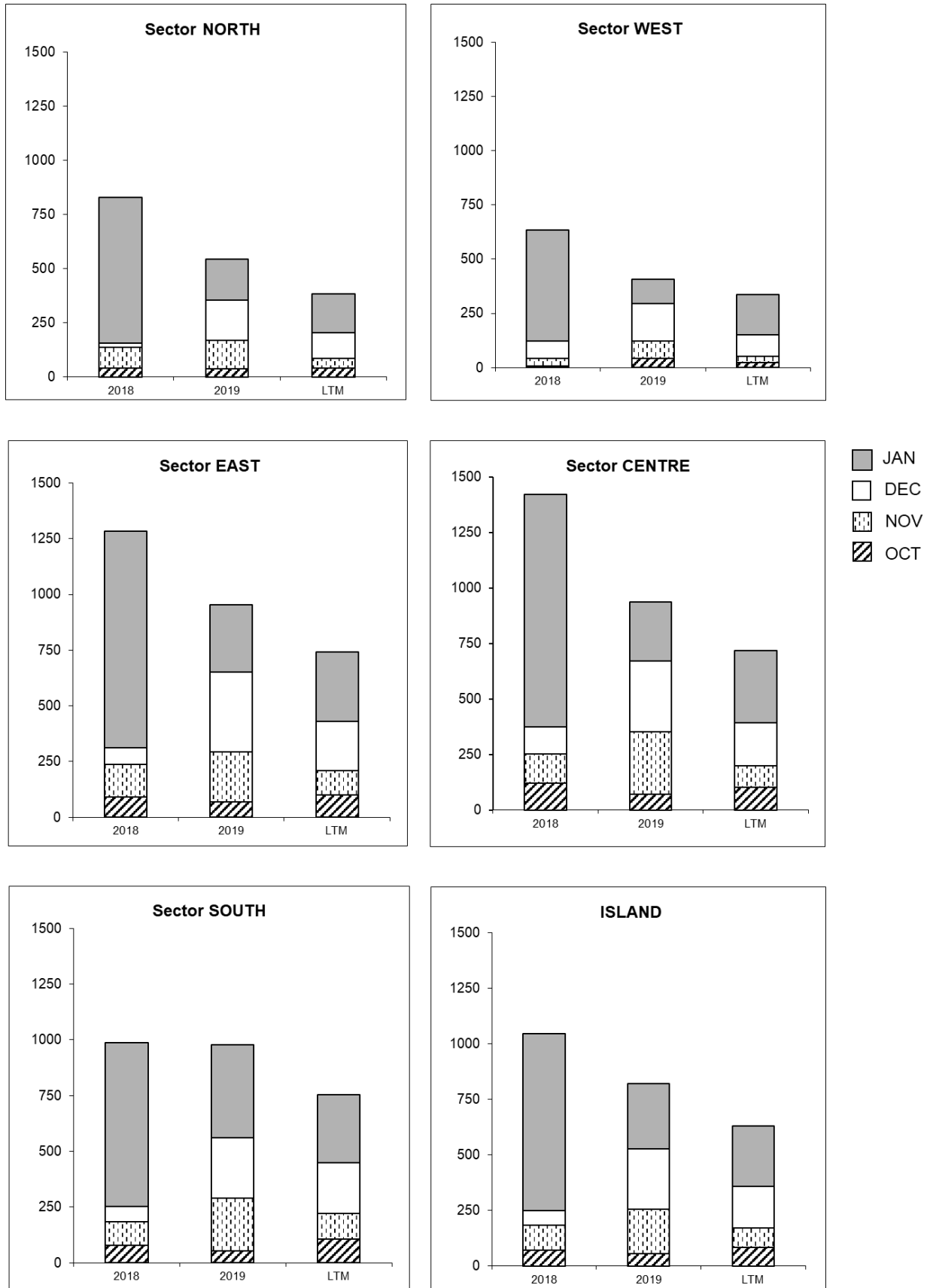
Table 1b. Cumulative rainfall (mm) from October 2018 to January 2019 for crop 2019 compared to that of crop 2018 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2018	830 (217)	1285 (173)	988 (131)	635 (188)	1423 (198)	1044 (166)
2019	544 (142)*	953 (128)	977 (130)	407 (120)	936 (130)	821 (131)
LTM	383	742	754	338	718	628

* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October 2018 to January 2019 for the 2019 crop compared to the same period of the 2018 crop and to the long-term mean (LTM).



1.2 Air Temperature and Sunshine duration (Table 2)

Maximum and minimum temperatures together with sunshine duration recorded during January 2019 at the four MSIRI agro-meteorological stations are summarized below.

Table 2. Air temperature and sunshine duration recorded on MSIRI agro-meteorological stations in January 2019

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Jan 2019	DevN*	Jan 2019	DevN	Jan 2019	% Normal
Ferret	31.6	+0.4	23.7	+1.5	259	106
Réduit	29.2	+0.8	22.2	+0.6	248	106
Belle Rive	28.2	+0.7	21.4	+1.8	211	108
Union Park	29.5	+2.0	22.1	+1.4	236	128

* Deviation from the Normal (1981-2010)

The mean monthly maximum temperature during January 2019 exceeded the normal at all stations ranging from +0.4°C at Ferret to +2.0°C at Union Park. Likewise, the mean monthly minimum temperature was above the normal at all stations, the difference ranging from +0.6°C at Réduit to +1.8°C at Belle Rive. On average 81% of the number of days in January 2019 exceeded the normal maximum temperature whereas for minimum temperature 90% of the number of days in January 2019 exceeded the normal.

Sunshine hours during January 2019 were well above normal at all stations. The recorded bright sunshine, as a percentage of the normal was 106% at both Ferret and Réduit, 108% at Belle Rive and 128% at Union Park. Above normal temperature and solar radiation are conducive to crop growth.

2. STALK HEIGHT

Stalk height were measured during the last week of January 2019 at 46 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. The measurements were compared to those of the corresponding period in January 2018 and to the mean of the five best cane yielding crops for the period 2009 to 2018 in each sector (referred to as normal).

2.1 Stalk elongation (Table 3a)

Stalk elongation during the month of January 2019 was higher than that of the same period in 2018 in sectors North, East and South, comparable in the Centre but lagged behind in the West. During the month of January 2019, the highest stalk growth was observed in the East with 58.9 cm followed by the North (55.3 cm), West (43.0 cm), South (39.8 cm) and Centre (38.1 cm). Compared to the normal for the corresponding period, growth exceeded the normal by 25.3 cm in the North, 18.0 cm in the East and 5.6 cm in the Centre. Stalk elongation in January 2019 was comparable to the normal in the South but lagged behind the normal by 2.9 cm in the West sector.

Table 3a. Stalk elongation during the month of January 2019

Sectors	Stalk elongation (cm) during January			January 2019 as % of	
	2019	2018	Normal	2018	Normal
North	55.3	37.9	30.0	145.9	184.1
East	58.9	41.6	40.9	141.6	143.9
South	39.8	30.1	39.3	132.2	101.2
West	43.0	48.0	45.9	89.6	93.7
Centre	38.1	39.1	32.5	97.4	117.2
Island	49.3	37.7	37.8	130.9	130.6

The island stalk elongation of 49.3 cm in January 2019 was higher than that of the corresponding period in 2018 (37.7 cm) by 11.6 cm and the normal (37.8 cm) by 11.5 cm.

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

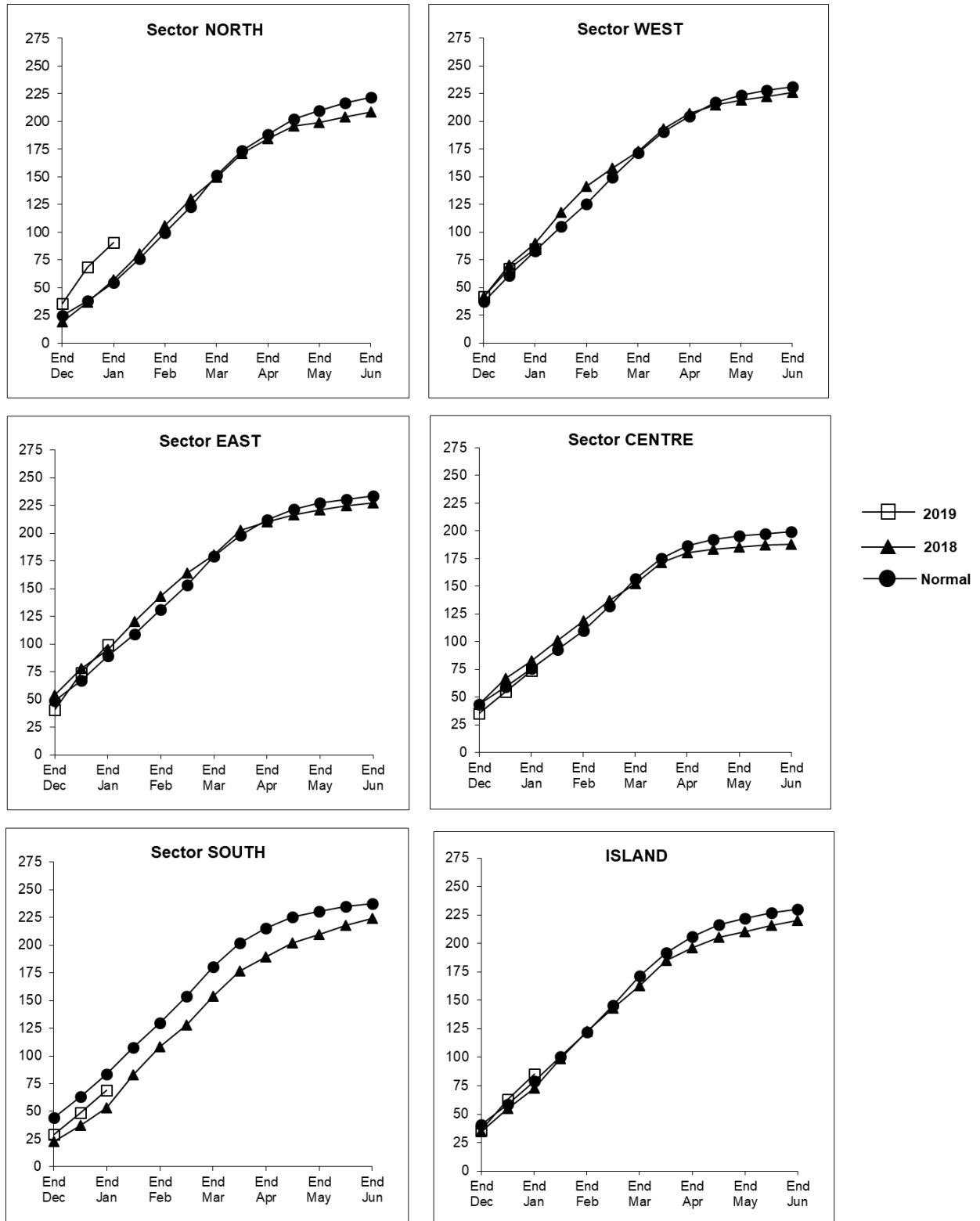
Total stalk height at end January 2019 stood at 90.9 cm in the North, 99.3 cm in the East, 68.7 cm in the South, 85.1 cm in the West and 73.7 cm in the Centre giving an island average of 85.1 cm. Compared to end-January 2018, stalk height was higher by 34.0 cm in the North, 4.0 cm in the East and 15.6 cm in the South whereas at the other two sectors it was lower by 4.9 cm in the West and 9.0 cm in the Centre. Total stalk height at end-January 2019 was above normal by 36.2 cm in the North, 9.8 cm in the East and 1.9 cm in the West. In the South and Centre, it lagged behind the normal by 15.0 cm and 2.3 cm, respectively.

At island level, the total stalk height of 85.1 cm at end of January 2019 was higher than that of the corresponding period in 2018 by 12.5 cm (17.2 %) and the normal by 6.2 cm (7.9%).

Table 3b. Total stalk height at end-January 2019.

Sectors	Stalk height (cm) at end-January			End-January 2019 as % of	
	2019	2018	Normal	2018	Normal
North	90.9	56.9	54.7	159.8	166.1
East	99.3	95.3	89.5	104.2	110.9
South	68.7	53.1	83.7	129.4	82.1
West	85.1	90.0	83.2	94.6	102.3
Centre	73.7	82.7	76.0	89.1	97.0
Island	85.1	72.6	78.9	117.2	107.9

Figure 2. Stalk height at end- January 2019



3. CROP 2019

The first half of the month of January 2019 has been deficient in rainfall over all regions of the island and it is only in the second half of the month that nearly 85% of the rainfall were recorded over the island. Air temperature and sunshine duration were above normal at all the four stations of MSIRI. The crop suffered mild water stress conditions during the first fortnight of the month but this situation improved in the second half with favourable climatic conditions in terms of ample rainfall and above normal temperature and solar radiation. This is reflected in the above normal stalk elongation recorded at the end of January 2019 in sectors North, East and Centre, close to normal in the South In the West, the slightly below normal stalk elongation could be attributed to the slow growth observed in the late season varieties. At this stage of growth and based on total stalk height, crop 2019 can be considered to be slightly above normal in most sector, except the South, provided the forthcoming climatic conditions remain normal and that all practices are adopted as per established recommendations.