

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2018

16 January 2018

SUGAR CANE CROP 2018

Status: End December 2017

1. CLIMATE

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

Rainfall recorded during December 2017 was below the long-term mean (LTM) in all sectors of the island. The island average of 65 mm represented only 37% of the long-term mean (176 mm) for the sugar cane areas. Rainfall recorded in December was 22 mm in the North, 74 mm in the East, 68 mm in the South, 82 mm in the West and 120 mm in the Centre. These amounts represented 18%, 39%, 33%, 85% and 52% of their respective long-term mean for these sectors.

Cumulative rainfall for the period October to December 2017 reached 158 mm in the North, 313 mm in the East, 253 mm in the South, 123 mm in the West and 373 mm in the Centre, which represented 75%, 88%, 61%, 79% and 84% of their respective long-term mean. The island average of 248 mm for this period represented 74% of the long-term mean (333 mm).

Rainfall has been insufficient to meet the water requirements of rainfed crops in all sectors during the month of December.

Table 1a. Rainfall (mm) for the month of December for crops 2017, 2018⁺ and the long term mean (LTM)

	North	East	South	West	Centre	Island
2017	75 (63)	288 (153)	115 (55)	72 (75)	156 (68)	153 (87)
2018	22 (18)*	74 (39)	68 (33)	82 (85)	120 (52)	65 (37)
LTM	120	188	209	96	231	176

⁺ Crop year is from October to September

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

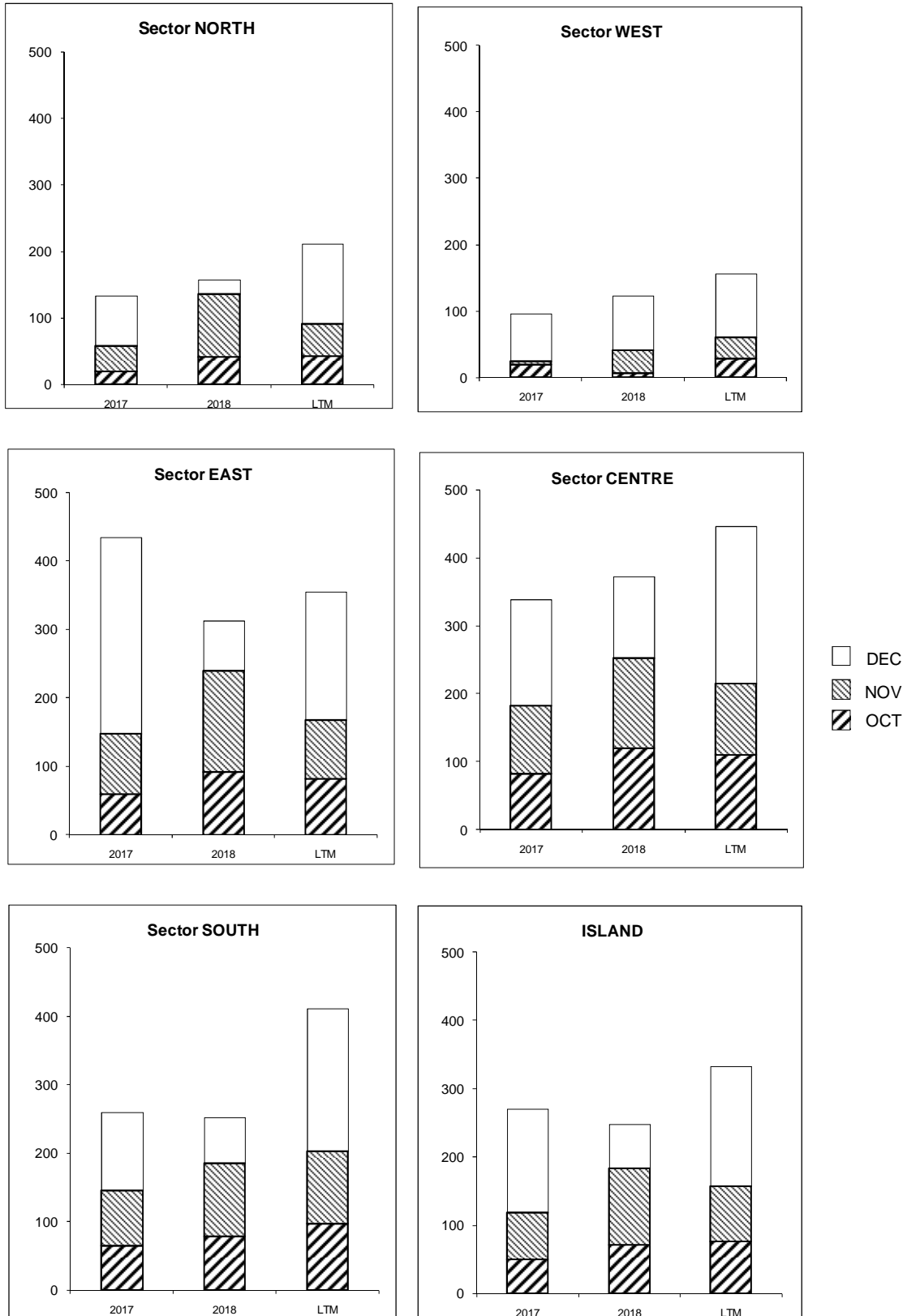
Table 1b. Cumulative rainfall (mm) from October to December 2017 for crop 2018 compared to that of crop 2017 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2017	133 (63)	435 (122)	260 (63)	96 (62)	339 (76)	271 (82)
2018	158 (75)*	313 (88)	253 (61)	123 (79)	373 (84)	248 (74)
LTM	211	355	412	156	446	333

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October to December 2017 for the 2018 crop compared to the corresponding period of the 2017 crop and to the long term mean (LTM).



1.2 Air Temperature and Sunshine duration (Table 2)

The table below summarises the data on maximum and minimum temperatures together with sunshine duration recorded during the month of December 2017 on the four MSIRI agro-meteorological stations.

Table 2. Air temperature and sunshine duration recorded on MSIRI agro-meteorological stations in December 2017

Stations	Maximum Temp (°C)		Minimum Temp (°C)		Sunshine hour	
	Dec 2017	DevN*	Dec 2017	DevN	Dec 2017	% Normal
Ferret	30.8	0.0	21.9	+0.9	244	97
Réduit	29.2	+1.4	20.5	+0.2	272	119
Belle Rive	27.9	+1.0	19.5	+1.1	245	119
Union Park	28.7	+1.9	20.3	+0.8	271	137

* Deviation from the Normal (1981-2010)

The mean monthly maximum temperature during December 2017 was similar to the normal at Ferret but exceeded the normal at the other stations. The mean monthly minimum temperature was above the normal at all stations ranging from 0.2°C at Réduit to 1.1°C at Belle Rive. Sunshine hours during December 2017 were above normal at all stations except at Ferret where it was slightly below normal. Recorded bright sunshine as a percentage of the normal was 97 at Ferret, 137 at Union Park and 119 at both Réduit and Belle Rive. Above normal temperature and solar radiation are conducive to crop growth.

2. STALK HEIGHT (Table 3)

Stalk height measurements were initially made during the last week of December 2017 at 48 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 are compared to those of the corresponding period in December 2016 and to the mean of the five best cane yielding crops for the period 2008 to 2017 in each sector (referred to as normal).

Table 3. Stalk height (cm) at end-December

Sectors	Stalk height (cm) at end-Dec			End-Dec 2017 as % of	
	2017	2016	Normal	2016	Normal
North	19.0	19.4	24.7	97.9	76.9
East	53.7	45.6	48.6	117.8	110.5
South	23.0	40.4	45.2	56.9	50.9
West	42.0	28.9	38.4	145.3	109.5
Centre	43.6	42.9	42.9	101.6	101.5
Island	34.9	36.7	41.2	95.3	84.9

Stalk height at end December 2017 averaged 19.0 cm in the North, 53.7 cm in the East, 23.0 cm in the South, 42.0 cm in the West and 43.6 cm in the Centre. These figures are higher than those recorded in December 2016 by 17.8% in the East and 45.3% in the West but are comparable in sectors North and Centre. In the South, stalk height at end December 2017 was lagging behind that of the previous year by 43.1%.

Stalk height in December 2017 was also comparable to the normal in the Centre but higher than the normal by 10.5% in the East and 9.5% in the West. In the other sectors, it lagged behind by 23.1% in the North and 49.1% in the South.

At island level, the cane height (34.9 cm), as at end-December 2017, was shorter than that at the corresponding period in December 2016 by 4.0 cm (4.7%) and to the normal by 6.3 cm (15.1%).

3. CROP 2018

The weather in December 2017 was characterised by below normal rainfall causing a short period of water stress especially in the rainfed sugarcane areas, where cane growth and development have been affected. This is clearly seen in the cane height being below that of last year and the normal in the North and South sectors. At end-December the initial island stalk height for the 2018 crop was inferior to both that of the 2016 crop by 4.7% and that of the normal by 15.1%.

However, the passage of tropical storm *Ava* in the proximity of Mauritius during the period of 2nd to 4th January 2018 has brought sufficient amount of rainfall over the island. This has eliminated the soil water stress and the soil moisture reserve has been replenished over the entire sugar cane areas. Moreover the formation of active clouds after the passage of tropical storm *Ava* has resulted in heavy rainfall events during the first and second weeks of January over the whole island.

No significant negative impact of excessive rainfall was recorded in the different sectors of Mauritius except for mild and sporadic cases of water logging and soil erosion in a few exposed fields. During the first fortnight of January 2018, the climatic conditions in terms of excessive rainfall coupled with below normal maximum temperature and solar radiation have not favoured optimum conditions for photosynthesis and crop growth. However, the crop will benefit from the stored moisture provided higher temperature and solar radiation prevail during the coming weeks.