

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2018

15 February 2018

SUGAR CANE CROP 2018

Status: End January 2018

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during January 2018 was well above the normal with an island average of 796 mm, representing 306% of the long-term mean of 260 mm. Above normal rainfall was also recorded in all sectors with 672 mm in the North, 972 mm in the East, 735 mm in the South, 512 mm in the West and 1050 mm in the Centre. The North, East and West sectors registered more than thrice their long-term monthly mean rainfall.

The major part of the total rainfall in January 2018 was associated with tropical storm *Ava* and severe tropical cyclone *Berguitta* coupled with active cloud formation. The island rainfall recorded during January 2018 is the wettest since the last 38 years.

Rainfall for the period October 2017 to January 2018 cumulated to 830 mm in the North, 1285 mm in the East, 988 mm in the South, 635 mm in the West and 1423 mm in the Centre, and represented 212%, 207%, 139%, 195% and 172% of the respective long-term mean. The island average of 1044 mm for this period represented 176% of the long-term mean (593 mm).

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

	North	East	South	West	Centre	Island
2017	66 (37)	195 (74)	147 (49)	98 (58)	224 (59)	145 (56)
2018	672 (373)*	972 (367)	735 (245)	512 (301)	1050 (277)	796 (306)
LTM	180	265	300	170	379	260

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

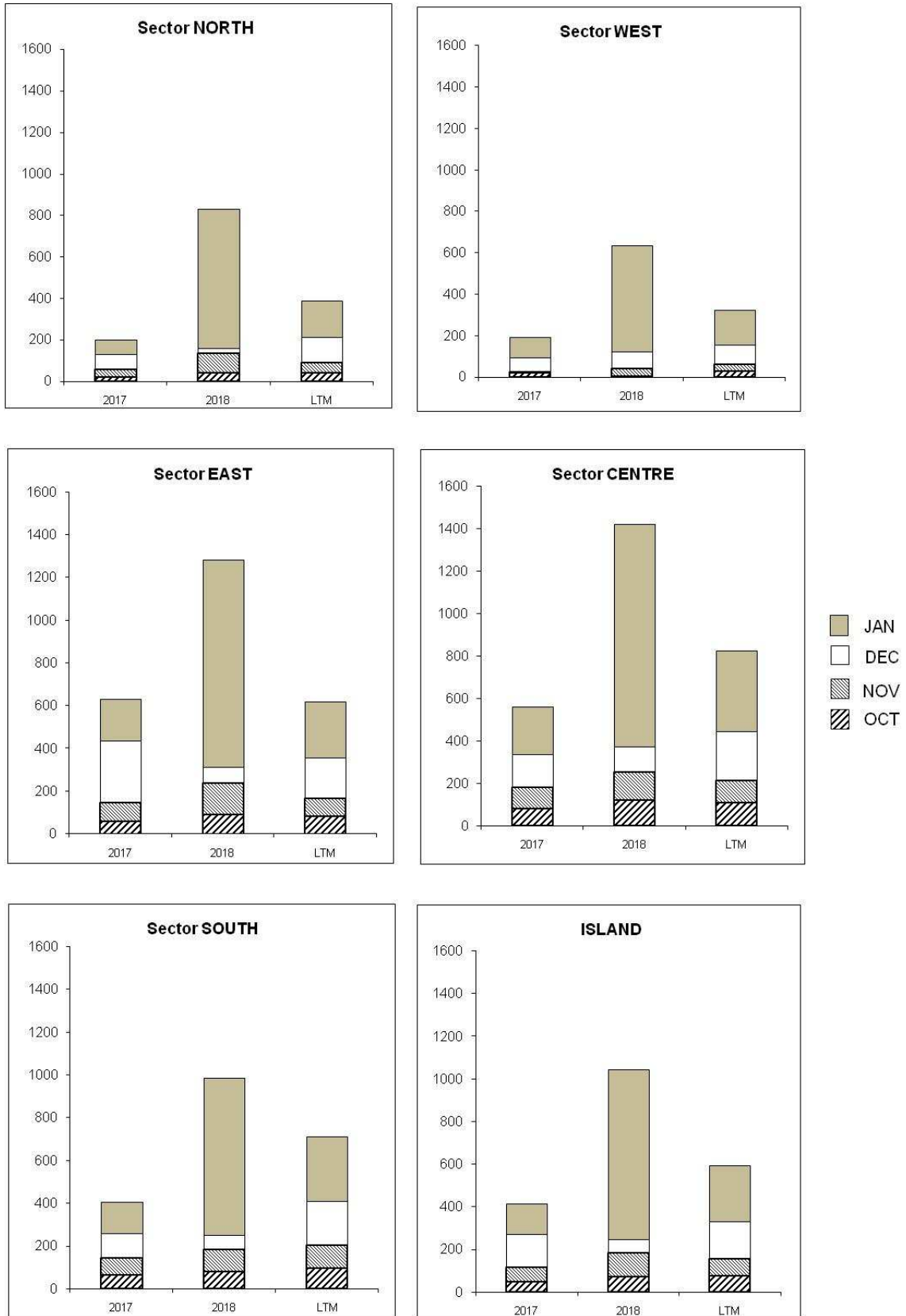
Table 1b. Cumulative rainfall (mm) from October 2017 to January 2018 for crop 2018 compared to that of crop 2017 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2017	199 (51)	630 (102)	407 (57)	194 (60)	563 (68)	416 (70)
2018	830 (212)*	1285 (207)	988 (139)	635 (195)	1423 (172)	1044 (176)
LTM	391	620	712	326	825	593

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October 2017 to January 2018 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 January 2018 on the four MSIRI agro-meteorological stations.

Table 2. Air temperature and sunshine duration recorded on MSIRI agro-meteorological stations in January 2018

Stations	Maximum Temp (°C)		Minimum Temp (°C)		Sunshine hour	
	Jan 2018	DevN*	Jan 2018	DevN	Jan 2018	% Normal
Ferret	30.0	-1.2	23.3	+1.1	166	68
Réduit	28.3	-0.1	21.9	+0.3	162	70
Belle Rive	26.8	-0.7	20.9	+1.3	130	66
Union Park	28.1	+0.6	21.8	+1.1	144	78

* Deviation from the Normal (1981-2010)

The mean monthly maximum temperature in January 2018 exceeded the normal at Union Park, was comparable to the normal at Réduit but lagged behind the normal at Ferret and Belle Rive. As for the mean minimum temperature, it exceeded the normal at all stations. The sky was overcast at all stations as depicted by the below normal sunshine duration. Recorded bright sunshine as a percentage of the normal was 68 at Ferret, 70 at Réduit, 66 at Belle Rive and 78 at Union Park. Below normal maximum temperature and sunshine duration are not conducive to optimum rate of photosynthesis and crop growth.

2. STALK HEIGHT

Measurement of stalk height was carried out during the last week of January 2018 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. Data collected are compared with those of the corresponding period in January 2017 and to the mean of the five best cane yielding crops of the period 2008 to 2017 in each sector (referred to as normal).

2.1 Stalk elongation (Table 3a)

Stalk elongation during the month of January 2018 was higher than that of the same period in 2017 in all sectors except in the South. During the month of January 2018, the highest stalk growth was observed in the West with 48.0 cm followed by the East (41.6 cm), Centre (39.1 cm), North (37.9 cm) and South (30.1 cm). Compared to the normal for the corresponding period, growth exceeded the normal by 7.9 cm in the North, 3.6 cm in the West, 5.8 cm in the Centre and 0.7 cm in the East whilst in the South elongation rate was lagging behind by 10.3 cm. The low growth recorded in the South could be attributed to the fact that a few fields selected for elongation assessment were harvested late during harvest 2017 coupled with the water stress condition that prevailed in December 2017.

The island stalk elongation of 37.7 cm was comparable to the normal (37.8 cm) but was higher than that of the corresponding period in 2017 (30.4 cm) by 7.3 cm.

Table 3a. Stalk elongation during the month of January

Sectors	Stalk elongation (cm) during January			January 2018 as % of	
	2018	2017	Normal	2017	Normal
North	37.9	20.2	30.0	187.6	126.2
East	41.6	40.7	40.9	102.2	101.7
South	30.1	30.9	40.4	97.4	74.5
West	48.0	15.0	44.4	320.0	108.2
Centre	39.1	35.3	33.3	110.8	117.5
Island	37.7	30.4	37.8	124.1	99.8

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

Total stalk height at end January 2018 reached 56.9 cm in the North, 95.3 cm in the East, 53.1 cm in the South, 90.0 cm in the West and 82.7 cm in the Centre giving an island average of 72.6 cm. Compared to end-January 2017, stalk height was higher by 17.3 cm in the North, 9.0 cm in the East, 46.1 cm in the West and 4.5 cm in the Centre, whereas in the South it was lower by 18.2 cm. Total stalk height at end-January 2018 was above normal by 2.2 cm in the North, 5.8 cm in the East, 7.3 cm in the West and 6.5 cm in the Centre. In the South, it lagged behind the normal by 32.5 cm.

At island level, the total stalk height of 72.6 cm at end of January 2018 was higher than the corresponding period in 2017 by 5.5 cm (8.3 %) but lagged behind the normal by 6.9 cm (8.7 %).

Table 3b. Stalk height at end-January.

Sectors	Stalk height (cm) at end-January			End-January 2018 as % of	
	2018	2017	Normal	2017	Normal
North	56.9	39.6	54.7	143.7	103.9
East	95.3	86.3	89.5	110.4	106.5
South	53.1	71.3	85.6	74.5	62.0
West	90.0	43.9	82.7	205.0	108.8
Centre	82.7	78.2	76.2	105.8	108.5
Island	72.6	67.1	79.5	108.3	91.3

3. Effect of severe tropical cyclone *Berguitta*

After the passage of severe tropical cyclone *Berguitta*, detailed surveys were carried out in the different factory areas across the island. The parameters taken into consideration were lodging, leaf laceration, spindle leaf breakage, stalk breakage and status of fields in terms of stagnation of water and soil erosion.

The results of the surveys revealed that there were very few cases of mild lodging in the long-season plant cane and in ratoons harvested early in 2017 particularly in exposed fields in sectors North, East, West and Centre. There were no cases of spindle leaf breakage and stalk breakage except in border rows and exposed fields. Moderate water accumulation in waterlogged-prone areas was observed but lasted only over a short period. The winds of severe tropical storm *Berguitta* did not cause significant negative damage on the sugar cane crop. However, a lack of solar radiation was experienced.

4. CROP 2018

The setback resulting from the effects of cyclone *Berguitta* has been insignificant in terms of lodging and water accumulation in the field. The associated rainfall has been beneficial to crop growth as can be depicted by the above normal elongation rate observed in January 2018 in all sectors except in the South. The weather experienced during the last week of the month of January 2018 with higher temperature and solar radiation coupled with abundant soil moisture has been conducive to optimum cane growth.

Figure 1. Stalk height at end-January 2018

