

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2018

13 March 2018

### SUGAR CANE CROP 2018

#### Status: End February 2018

## 1. CLIMATE

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

Rainfall recorded over the sugar cane areas during February 2018 was comparable to the normal with an island average of 329 mm, representing 101% of the long-term mean (LTM) of 328 mm. Above normal rainfall was recorded in sectors South with 427 mm, West with 287 mm and Centre with 476 mm. The North and East sectors registered 162 mm and 316 mm of rainfall which were below their long-term monthly mean rainfall.

The month of February 2018 was characterized by short duration heavy localised rainfall which was associated with convective cloud built-up during the day mainly in the Westerly and South-easterly regions of the island.

The cumulative rainfall for the period October 2017 to February 2018 amounted to 992 mm in the North, 1601 mm in the East, 1415 mm in the South, 922 mm in the West and 1899 mm in the Centre, and represented 159%, 165%, 131%, 176% and 149% of the respective LTM. The island average of 1373 mm for this period represented 149% of the LTM (920 mm).

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

	North	East	South	West	Centre	Island
<b>2017</b>	232 (100)	486 (138)	307 (83)	143 (72)	483 (107)	341 (104)
<b>2018</b>	<b>162</b> (70)*	<b>316</b> (90)	<b>427</b> (115)	<b>287</b> (145)	<b>476</b> (105)	<b>329</b> (101)
<b>LTM</b>	232	351	372	198	452	328

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

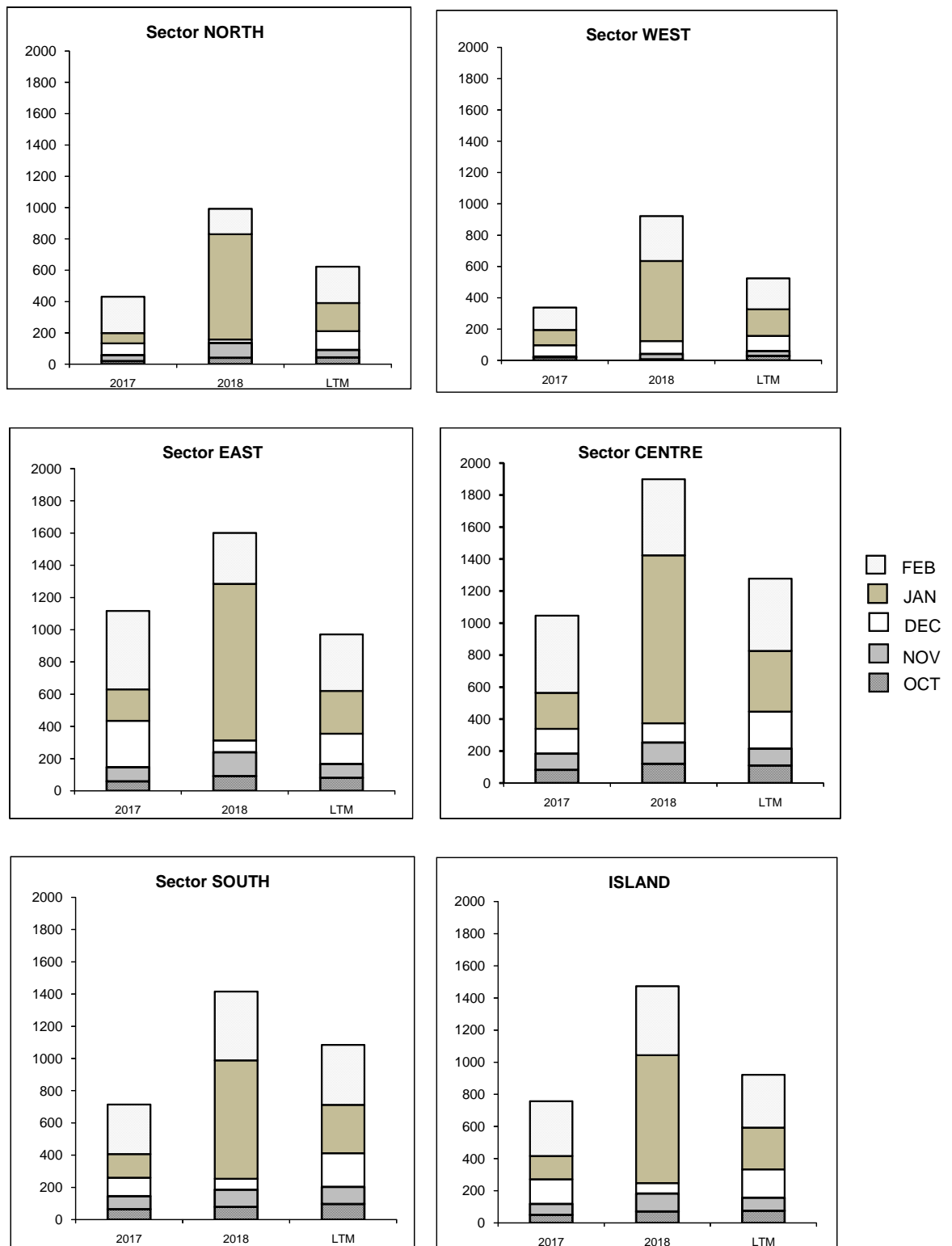
**Table 1b. Cumulative rainfall (mm) from October 2017 to February 2018 for crop 2018 compared to that of crop 2017 and the long-term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2017</b>	431 (69)	1116 (115)	714 (66)	337 (64)	1046 (82)	758 (82)
<b>2018</b>	<b>992</b> (159)*	<b>1601</b> (165)	<b>1415</b> (131)	<b>922</b> (176)	<b>1899</b> (149)	<b>1373</b> (149)
<b>LTM</b>	623	971	1084	524	1277	920

\* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2017 to February 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)

Data on maximum and minimum temperatures together with sunshine duration recorded during the month of January 2018 on the four MSIRI agro-meteorological stations are summarized in the table below.

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

Stations	Maximum Temp (°C)		Minimum Temp (°C)		Sunshine hour	
	Feb 2018	DevN*	Feb 2018	DevN	Feb 2018	% Normal
<b>Ferret</b>	31.2	+0.3	23.3	+0.8	214	100
<b>Réduit</b>	29.5	+1.3	21.8	-0.1	185	89
<b>Belle Rive</b>	28.1	+0.7	21.0	+1.0	155	94
<b>Union Park</b>	29.2	+1.8	21.8	+0.8	159	104

\* Deviation from the Normal (1981-2010)

The mean monthly maximum temperature in February 2018 exceeded the normal at all stations varying from +0.3 °C at Ferret to +1.8 at Union Park. As for the mean minimum temperature, it exceeded the normal at all stations except at Réduit where it was comparable to the normal. Solar radiation was below normal at Réduit and Belle Rive but comparable to the normal at the other two stations. Recorded bright sunshine as a percentage of the normal was 100 at Ferret, 89 at Réduit, 94 at Belle Rive and 104 at Union Park. Above normal maximum temperature and sunshine duration are conducive to optimum rate of photosynthesis and crop growth.

## 2. STALK HEIGHT

Measurement of stalk height was carried out during the last week of February 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 February 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 February 2018 was higher than that of the same period in 2017 in sectors South and West, comparable in sectors North and East whereas in the Centre it was lower than that of 2017. During the month of February 2018, highest stalk growth was observed in the South with 54.9 cm followed by the West (51.0 cm), North (49.1 cm), East (47.9 cm) and Centre (36.5 cm). Compared to the normal for the corresponding period, growth exceeded the normal in all sectors by 4.6 cm in the North, 6.4 cm in the East, 10.6 cm in the South, 8.4 cm in the West and 2.7 cm in the Centre.

The island stalk elongation of 50.0 cm in February 2018 was higher than that of the corresponding period in 2017 (44.6 cm) by 5.4 cm and the normal (43.0 cm) by 7.0 cm.

**Table 3a. Stalk elongation during the month of February**

Sectors	Stalk elongation (cm) during February			February 2018 as % of	
	2018	2017	Normal	2017	Normal
North	49.1	48.3	44.5	101.7	110.3
East	47.9	47.9	41.5	100.0	115.3
South	54.9	40.5	44.3	135.6	124.0
West	51.0	43.4	42.6	117.5	119.6
Centre	36.5	39.9	33.8	91.5	108.1
<b>Island</b>	<b>50.0</b>	<b>44.6</b>	<b>43.0</b>	<b>112.0</b>	<b>116.2</b>

## 2.2 Cumulative Elongation (Table 3b)

Stalk growth from end-December 2017 to end-February 2018 cumulated to 87.0 cm in the North, 89.5 cm in the East, 85.0 cm in the South, 99.0 cm in the West and 75.6 cm in the Centre. These cumulative growths were comparable to those of 2017 in the East and Centre but higher in the other sectors by 18.5cm in the North, 13.6 cm in the South and 40.6 cm in the West. For the same period, cumulative growth was comparable to the normal in the South but higher than the normal in the other sectors ranging from 5.4 cm in the East to 12.5 cm in the North. Island-wise the cumulative elongation of 87.6 cm in February 2018 was higher than those of the 2017 crop (75.0 cm) by 16.9% and the normal (80.8 cm) by 8.5%.

**Table 3b. Cumulative elongation at end-February 2018.**

Sectors	Cumulative elongation (cm) at end- February			End-February 2018 as % of	
	2018	2017	Normal	2017	Normal
North	87.0	68.5	74.5	127.0	116.7
East	89.5	88.6	84.1	101.0	106.4
South	85.0	71.4	84.7	119.0	100.4
West	99.0	58.4	87.0	169.5	113.8
Centre	75.6	75.2	67.0	100.5	112.8
<b>Island</b>	<b>87.6</b>	<b>75.0</b>	<b>80.8</b>	<b>116.9</b>	<b>108.5</b>

### 2.3 Total stalk height (Table 3c and Figure 2)

At the end of February 2018, total stalk height reached 106.0 cm in the North, 143.2 cm in the East, 108.0 cm in the South, 141.0 cm in the West and 119.2 cm in the Centre giving an island average of 122.6 cm. Compared to end-February 2017, stalk height was higher by 18.1 cm in the North, 9.0 cm in the East, 53.7 cm in the West and 1.1 cm in the Centre, whereas in the South it was lower by 3.8 cm. Total stalk height at end-February 2018 was above normal by 6.8 cm in the North, 12.1 cm in the East, 15.6 cm in the West and 9.2 cm in the Centre. In the South, it lagged behind the normal by 21.9 cm.

At island level, total stalk height of 122.6 cm at end of February 2018 was higher than the corresponding period in 2017 by 10.9 cm (9.8 %) but was comparable to the normal.

**Table 3c. Total stalk height at end-February.**

Sectors	Stalk height (cm) at end-February			End-February 2018 as % of	
	2018	2017	Normal	2017	Normal
North	106.0	87.9	99.2	120.6	106.8
East	143.2	134.2	131.1	106.7	109.3
South	108.0	111.8	129.9	96.6	83.2
West	141.0	87.3	125.4	161.5	112.5
Centre	119.2	118.1	110.0	100.9	108.4
<b>Island</b>	<b>122.6</b>	<b>111.7</b>	<b>122.2</b>	<b>109.8</b>	<b>100.3</b>

### 3. CROP 2018

The weather during February 2018 was characterized by heavy rainfall over short period with above normal rainfall in most sectors. There were few cases of water accumulation in waterlogged-prone areas but these lasted only over a short period. Solar radiation was close to slightly below normal while air temperature was above normal. Overall the weather prevailing during February 2018 was considered conducive to crop growth. This is reflected in stalk elongation of February 2018 being higher than that of the normal in all sectors of the island. Total stalk height for the island which was below normal by nearly 9% in January 2018 is now comparable to the normal.

**Figure 2. Stalk height at end-February 2018**

