

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2017

21 August 2017

### SUGAR CANE CROP 2017

Status: End June 2017

#### 1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of June 2017 was above the normal with an island average of 173 mm, representing 151% of the long-term mean (LTM) of 114 mm. Above normal rainfall was recorded in the North, East, South and Centre with 92 mm, 217 mm, 219 mm and 216 mm, respectively. In the West, the recorded 23 mm of rain during June 2017 was below the long-term mean.

Cumulative rainfall over the period October 2016 to June 2017 amounted to 1921 mm, which is higher by 16% than the island long-term mean of 1657 mm. During the same period 1110 mm were recorded in the North, 2692 mm in the East, 2029 mm in the South, 599 mm in the West and 2456 mm in the Centre. These figures represented 101%, 152%, 102%, 71% and 109% of the respective long-term mean.

**Table 1a. Rainfall (mm) for the month of June for crops 2016, 2017 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2016</b>	55 (79)	182 (153)	149 (99)	9 (25)	254 (164)	135 (118)
<b>2017</b>	<b>92</b> (131)*	<b>217</b> (182)	<b>219</b> (146)	<b>23</b> (64)	<b>216</b> (139)	<b>173</b> (151)
<b>LTM</b>	70	119	150	36	155	114

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

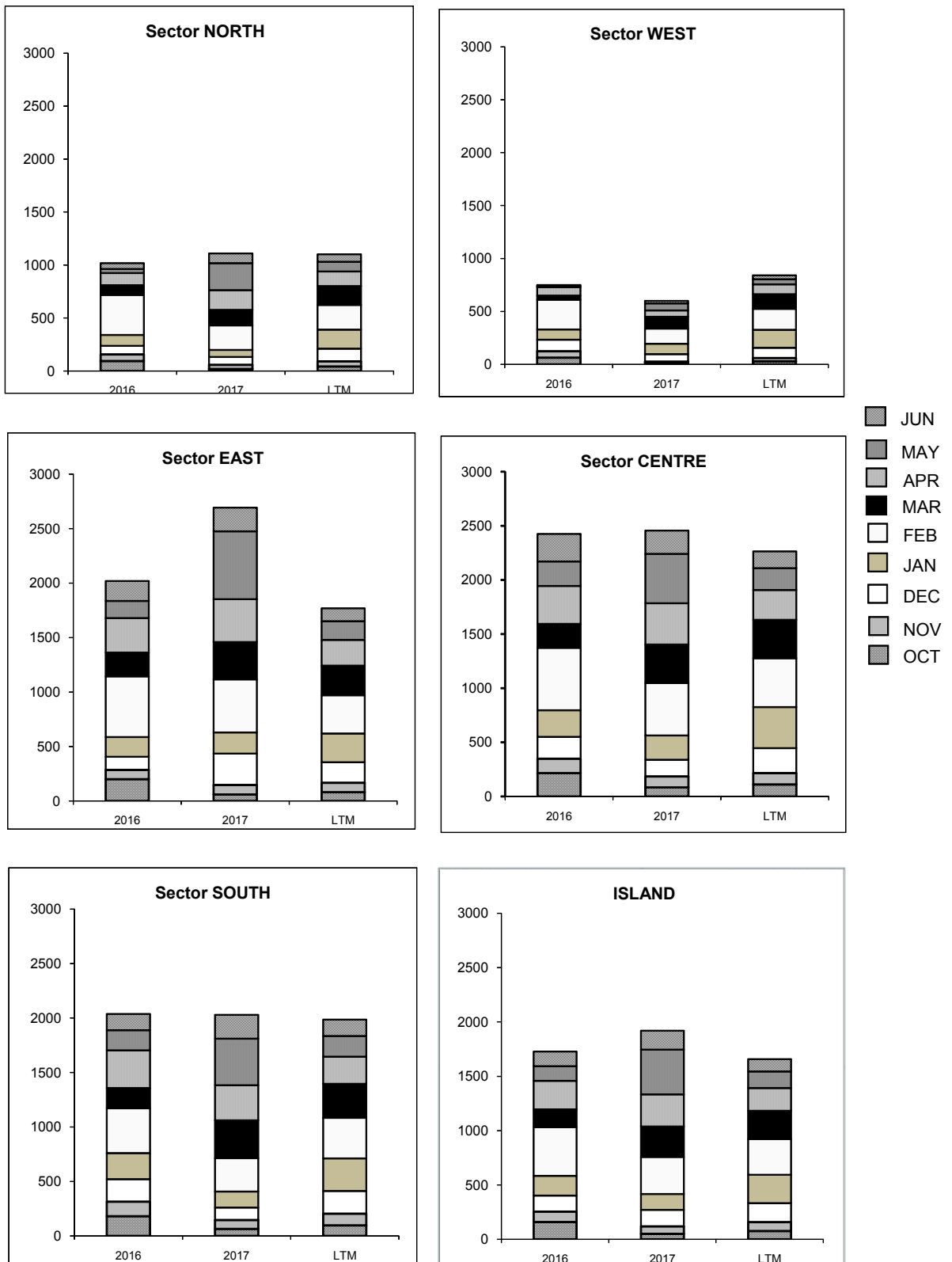
**Table 1b. Cumulative rainfall (mm) from October 2016 to June 2017 for crop 2017 compared to that of crop 2016 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2016</b>	1018 (92)	2019 (114)	2038 (103)	749 (89)	2424 (107)	1730 (104)
<b>2017</b>	<b>1110</b> (101)*	<b>2692</b> (152)	<b>2029</b> (102)	<b>599</b> (71)	<b>2456</b> (109)	<b>1921</b> (116)
<b>LTM</b>	1101	1769	1985	841	2263	1657

\* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2016 to June 2017 for the 2017 crop compared to the corresponding period of the 2016 crop and to the long term mean (LTM)**



### 1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of June 2017 on MSIRI agro-meteorological stations are given below.

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

Stations	Maximum Temp (°C)		Minimum Temp (°C)		Amplitude (°C)	
	June 2017	DevN*	June 2017	DevN	June 2017	DevN
Ferret, Belle Vue	26.1	-0.2	18.5	+1.7	7.6	-1.9
Réduit	24.3	+1.0	17.2	+1.2	7.1	-0.2
Belle Rive	23.7	+0.7	16.5	+1.8	7.2	-1.1
Union Park	23.6	+1.1	17.8	+1.6	5.8	-0.5

\* Deviation from the Normal (1981-2010)

Mean maximum temperature during June 2017 was close to normal at Ferret but above normal at the other stations. Mean minimum temperature, compared to the normal, was higher by more than 1.2° at all stations. The resulting mean amplitude was close to normal at Réduit but lagged behind the normal by 1.9° at Ferret, 1.1° at Belle Rive and 0.5° at Union Park. Lower temperature amplitudes are detrimental to sucrose accumulation.

### 1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that solar radiation was below normal at Réduit but comparable to the normal at the other stations. Recorded bright sunshine as a percentage of the normal amounted to 101 at Ferret, 86 at Réduit, 97 at Belle Rive and 102 at Union Park.

**Table 3. Sunshine duration (h) recorded on MSIRI agro-meteorological stations in June 2017**

Station	June 2017	Normal	% of Normal
Ferret	233	230	101
Réduit	189	219	86
Belle Rive	189	195	97
Union Park	149	146	102

## 2. STALK HEIGHT

During the last week of June 2017 stalk height was assessed at 48 sites in the five sugar cane sectors of the island. These sites are representative of the various agro-climatic zones, different varieties and crop categories. Data collected were compared with those of the corresponding period in 2016 and to the mean of the five best cane yielding crops for the period 2007 to 2016 in each sector (referred to as normal).

### 2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of June 2017 was 11.7 cm in the North, 3.8 cm in the East, 10.9 cm in the South, 11.5 cm in the West and 1.6 cm in the Centre. These figures exceeded those recorded during the corresponding period in 2016 in all sectors. The elongation rates of June 2017 were also above normal by 1.5 cm in the North, 3.7 cm in the South and 4.3 cm in the West. It was lagging behind the normal in the East and Centre. The 8.4 cm average elongation for the island in June 2017 was higher than the 3.3 cm recorded in June 2016 and was comparable to the 8.0 cm of the normal.

**Table 4a. Stalk elongation during the month of June 2017**

Sectors	Stalk elongation (cm) during June			June 2017 as % of	
	2017	2016	Normal	2016	Normal
North	11.7	4.0	10.2	292.5	115.2
East	3.8	2.9	7.3	131.0	52.2
South	10.9	3.1	7.2	351.6	151.0
West	11.5	5.2	7.2	221.2	160.6
Centre	1.6	1.0	4.1	160.0	39.4
<b>Island</b>	<b>8.4</b>	<b>3.3</b>	<b>8.0</b>	<b>253.0</b>	<b>105.0</b>

### 2.2 Cumulative elongation (Table 4b)

Cumulative growth during the period end-December 2016 to end-June 2017 amounted to 203.6 cm in the North, 189.4 cm in the East, 193.8 cm in the South, 178.9 cm in the West and 154.6 cm in the Centre. These cumulative growths exceeded those of 2016 in all sectors except in the West. For the same period, growth in 2017 was comparable to the normal in the South whereas in the North and East it was above normal. Cumulative growth in 2017 was below the normal in the West and Centre. Island-wise the cumulative elongation of 187.0 cm was higher than those of the 2016 crop (181.8 cm) and the normal (184.4 cm).

**Table 4b. Cumulative elongation at end-June 2017**

Sectors	Cumulative elongation (cm) at end- June			End-June 2017 as % of	
	2017	2016	Normal	2016	Normal
North	203.6	197.6	195.7	103.0	104.0
East	189.4	180.3	184.9	105.0	102.4
South	193.8	180.3	192.3	107.5	100.8
West	178.9	193.6	192.5	92.4	92.9
Centre	154.6	149.9	156.6	103.1	98.7
<b>Island</b>	<b>187.0</b>	<b>181.8</b>	<b>184.4</b>	<b>102.8</b>	<b>101.4</b>

### 2.3 Total stalk height (Table 4c and Figure 2)

Total stalk height at end June 2017 stood at 223.0 cm in the North, 235.0 cm in the East, 234.2 cm in the South, 207.8 cm in the West and 197.5 cm in the Centre, giving an island average of 227.1 cm. Compared to the corresponding period in 2016, total stalk height in June 2017 was higher in all sectors except in the West where it was lagging behind by 23.9 cm. Total stalk height in June 2017 with respect to the normal was higher by 1.7 cm in the North and 2.7

cm in the East but lagged behind the normal by 3.3 cm in the South, 23.1 cm in the West and 2.0 cm in the Centre.

At island level, the total stalk height of 227.1 cm at end of June 2017 was higher than that of the corresponding period in 2016 (222.2 cm) but comparable to that of the normal (228.6 cm).

**Table 4c. Stalk height at end-June 2017**

Sectors	Stalk height (cm) at end-June			End-June 2017 as % of	
	2017	2016	Normal	2016	Normal
North	223.0	221.7	221.3	100.6	100.7
East	235.0	225.4	232.3	104.3	101.2
South	234.2	221.7	237.5	105.6	98.6
West	207.8	231.7	230.9	89.7	90.0
Centre	197.5	195.7	199.5	100.9	99.0
<b>Island</b>	<b>227.1</b>	<b>222.2</b>	<b>228.6</b>	<b>102.2</b>	<b>99.3</b>

### 3. SUCROSE ACCUMULATION (Tables 5a and 5b)

During the last week of June 2017 cane samples from miller-planters' land in all factory areas and covering the main cultivated varieties were analyzed for sucrose content. The average Pol % cane (*richesse*) was calculated on the basis of area under cultivation of each variety in the different factory areas of each sector. The results were compared with those of the last two years.

**Table 5a. Average Pol % cane (richesse) at end-June 2017**

Sectors	M 52/78	M 703/89	R 573	M 2256/88	M 695/69	R 575	M 387/85	M 1246/84	M 2593/92	M 2283/98	M 1400/86	M 1176/77	M 1861/89	R 579	M 1672/90	R 570
North			11.9	13.8				9.9	10.4		8.3	9.4		9.7	7.9	8.2
East			13.9						12.4		12.0	11.7		10.2		10.3
South	14.1	12.5	12.4		12.0	12.7	11.9		10.3	10.9	10.5	10.3	11.8	9.6	9.5	8.8
West			11.8			12.2			10.9		9.3	11.9		11.1		10.4
Centre	13.4	12.3					11.9				10.8	11.3		9.9		

**Table 5b. Comparison of Pol % cane (richesse) at the end of May and June 2015, 2016 and 2017**

Sectors	MAY			JUNE		
	2015	2016	2017	2015	2016	2017
North	9.7	10.4	7.2	10.8	13.7	9.4
East	9.4	10.3	9.0	11.5	12.6	11.3
South	10.6	10.6	8.5	11.8	13.1	10.7
West	8.9	9.6	8.4	11.8	11.5	11.1
Centre	10.7	10.9	9.5	11.7	12.7	11.6
<b>Island</b>	<b>9.9</b>	<b>10.4</b>	<b>8.4</b>	<b>11.5</b>	<b>12.9</b>	<b>10.7</b>

During the month of June 2017, *richesse* had improved in all sectors compared to May 2017. The highest increment of 2.7° was observed in the West followed by 2.3° in the East, 2.2° in both the North and South, and 2.1° in the Centre. On average for the island, the increase in *richesse* was 2.3° in 2017 which was comparable to the increment obtained in 2016 but higher than that obtained in 2015.

At the end of June 2017, *richesse* was 9.4% in the North, 11.3% in the East, 10.7% in the South, 11.1% in the West and 11.6% in the Centre. Compared to the corresponding period in 2016, sucrose content at end-June 2017 was lagging behind in all sectors by 4.3° in the North, 1.3° in the East, 2.4° in the South, 0.4° in the West and 1.1° in the Centre. Sucrose content at the end of June for the present crop was also below that of 2015 in the North, South and West but comparable in the other two sectors.

Island-wise, the *richesse* of 10.7% recorded at the end of June 2017 was inferior to that of the corresponding period in 2016 (12.9%) and 2015 (11.5%).

#### **4.0 CROP 2017**

As witnessed in May 2017, the climatic conditions that prevailed in June 2017 were again characterized by above normal rainfall especially during the first half of the month coupled with above normal maximum temperature and near normal solar radiation that have favoured crop growth at the expense of sucrose accumulation. The stalk elongation over the island in June 2017 was higher than those of June 2016 and comparable to the normal while total stalk height at the end of June 2017 exceeded that of the corresponding period of last year by 2% and was close to the normal.

The below normal temperature amplitude was not conducive to optimum sucrose accumulation and the 10.7% *richesse* obtained over the island in June 2017 was inferior to those obtained in June 2016 (12.9%) and June 2015 (11.5%).

It is still too early to draw a firm conclusion on the crop productivity given the area harvested is only 5%. Weather conditions in the coming months will determine the final yield particularly with respect to extraction rate.

**Figure 2. Stalk height at end-June 2017**

