

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2018

13 July 2018

SUGAR CANE CROP 2018

Status: End June 2018

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of June 2018 was close to the normal with an island average of 115 mm, representing 97% of the long-term mean (LTM) of 119 mm. Sector-wise, rainfall was equal to the LTM in the North, higher than the LTM in the South with 165 mm but lagged behind the respective LTM of the month with 122 mm in the East, 14 mm in the West and 136 mm in the Centre.

The cumulative rainfall over the period October 2017 to June 2018 amounted to 1568 mm in the North, 2835 mm in the East, 2488 mm in the South, 1238 mm in the West and 3127 mm in the Centre, and represented 143%, 158%, 125%, 149% and 139% of the respective LTM. The island average of 2329 mm for this period represented 140% of the LTM (1661 mm).

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

	North	East	South	West	Centre	Island
2017	92 (146)	217 (152)	219 (143)	23 (92)	216 (145)	173 (146)
2018	63 (100)*	122 (85)	165 (108)	14 (56)	136 (91)	115 (97)
LTM	63	143	153	25	149	119

* figures in brackets are % of LTM (1981-10, based on 23 stations over Mauritius)

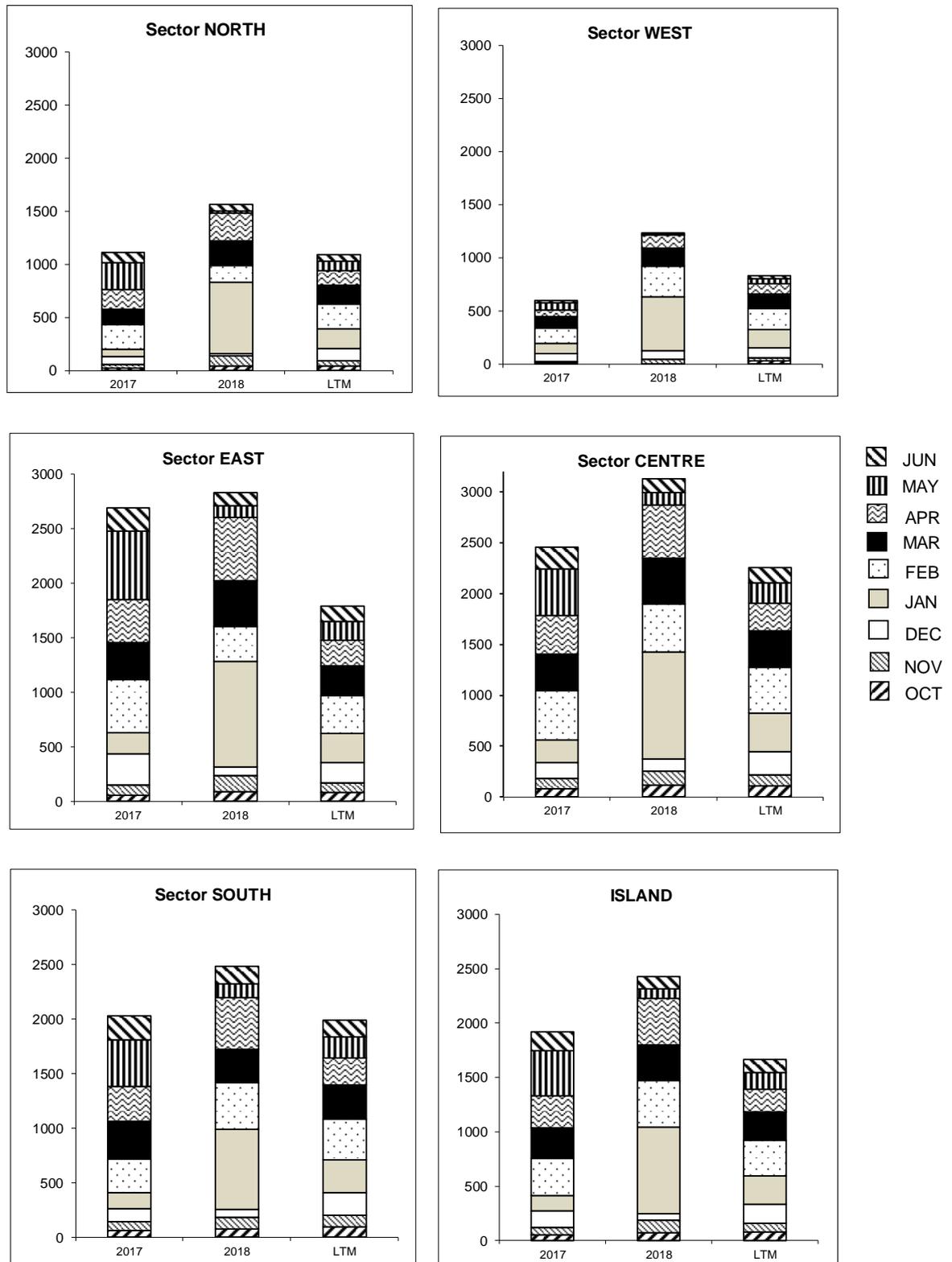
Table 1b. Cumulative rainfall (mm) from October 2017 to June 2018 for crop 2018 compared to that of crop 2017 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2017	1110 (101)	2692 (150)	2029 (102)	599 (72)	2456 (109)	1920 (116)
2018	1568 (143)*	2835 (158)	2488 (125)	1238 (149)	3127 (139)	2329 (140)
LTM	1094	1793	1988	830	2257	1661

* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October 2017 to June 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 (Table 2)

Data on maximum and minimum temperatures together with temperature amplitude as recorded during the month of June 2018 on four MSIRI agro-meteorological stations are given below.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in June 2018

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	June 2018	DevN*	June 2018	DevN	June 2018	DevN
Ferret	26.5	+0.2	18.4	+1.6	8.1	-1.4
Réduit	24.5	+1.2	16.8	+0.8	7.7	+0.4
Belle Rive	23.8	+0.8	15.7	+1.0	8.1	-0.2
Union Park	23.8	+1.3	17.2	+1.0	6.6	+0.3

* Deviation from the Normal (1981-2010)

Mean maximum temperature during June 2018 was above normal at all stations spanning from 0.2° at Ferret to 1.3° at Union Park. Similarly, mean minimum temperature was higher than the normal at all stations ranging from 0.8° at Réduit to 1.6° at Ferret. The resulting mean amplitude exceeded the normal at Réduit and Union Park by a margin of 0.4° and 0.3°, respectively. At the other two stations, the temperature amplitude was below normal. Generally, above normal temperature amplitude favours sucrose accumulation.

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that duration of sunshine during June 2018 were above normal at Union Park, close to normal at Belle Rive but lagged behind the normal at Ferret and Réduit stations. Recorded bright sunshine as a percentage of the normal amounted to 94 at Ferret, 91 at Réduit, 99 at Belle Rive and 112 at Union Park.

Table 3. Sunshine duration (h) recorded on MSIRI agro-meteorological stations in June 2018

Station	June 2018	Normal	% of Normal
Ferret	216	230	94
Réduit	200	219	91
Belle Rive	194	195	99
Union Park	163	146	112

2. STALK HEIGHT

Assessment of stalk height was done during the last week of June 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 June 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 4a)

Stalk elongation during the month of June 2018 was higher than that of the same period in 2017 in the East, South and Centre but inferior in the other sectors. During the month of June 2018, stalk growth ranged from 3.0 cm in the Centre to 14.2 cm in the South. The elongation rates of June 2018 exceeded the normal in the South by 7.0 cm, it was comparable to the normal in the East and West sectors but lagged behind the normal in the other sectors by 2.0 cm in the North and 1.1 cm in the Centre.

The island stalk elongation of 9.6 cm in June 2018 was higher than those of the corresponding period in 2017 by 1.2 cm and the normal by 1.6 cm.

Table 4a. Stalk elongation during the month of June 2018

Sectors	Stalk elongation (cm) during June			June 2018 as a % of	
	2018	2017	Normal	2017	Normal
North	9.7	11.7	11.7	82.9	82.9
East	6.8	3.8	6.5	178.9	104.0
South	14.2	10.9	7.2	130.3	196.7
West	7.4	11.5	7.2	64.3	103.4
Centre	3.0	1.6	4.1	187.5	73.9
Island	9.6	8.4	8.0	114.4	120.2

2.2 Cumulative Elongation (Table 4b)

The cumulative stalk growth from end-December 2017 to end-June 2018 reached 189.7 cm in the North, 173.9 cm in the East, 200.9 cm in the South, 184.3 cm in the West and 144.6 cm in the Centre.

Table 4b. Cumulative elongation at end-June 2018.

Sectors	Cumulative elongation (cm) at end- June			End-June 2018 as a % of	
	2018	2017	Normal	2017	Normal
North	189.7	203.6	196.9	93.2	96.3
East	173.9	189.4	185.5	91.8	93.8
South	200.9	193.8	192.3	103.7	104.5
West	184.3	178.9	192.5	103.0	95.7
Centre	144.6	154.6	156.6	93.5	92.4
Island	180.7	187.0	184.4	96.6	98.0

Compared to the corresponding period in 2017, these cumulative growths were higher in the South by 7.1 cm and West by 5.4 cm. It was lagging behind by 13.9 cm in the North, 15.5 cm in the East and 10.0 cm in the Centre. For the same period, cumulative growth was above the normal in the South only by 8.6 cm whereas in the other sectors it was inferior to the normal.

Island-wise the cumulative elongation of 180.7 cm in June 2018 was lower than that of the 2017 crop (187.0 cm) by 3.4 % and the normal (184.4 cm) by 2.0 %.

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

Total stalk height by the end of June 2018 stood at 208.7 cm in the North, 227.6 cm in the East, 223.9 cm in the South, 226.3 cm in the West and 188.2 cm in the Centre giving an island average of 219.9 cm. Compared to the corresponding period last year, stalk height was higher by 19.5 cm in the West, but was lagging behind in the other sectors. Total stalk height at end-June 2018 was inferior to the normal in all sectors ranging from a deficit of 4.6 cm in the West to 13.6 cm in the South.

At island level, total stalk height of 219.9 cm at end of June 2018 was lower than those of the corresponding period in 2017 by 7.2 cm (3.2 %) and the normal by 10.0 cm (4.4 %).

Table 4c. Total stalk height (cm) at end-June 2018.

Sectors	Stalk height (cm) at end-June			End-June 2018 as a % of	
	2018	2017	Normal	2017	Normal
North	208.7	223.0	221.6	93.6	94.2
East	227.6	235.0	233.8	96.9	97.4
South	223.9	234.2	237.5	95.6	94.3
West	226.3	207.8	230.9	108.9	98.0
Centre	188.2	197.5	199.5	95.3	94.3
Island	219.9	227.1	229.9	96.8	95.6

3.0 SUCROSE ACCUMULATION (Tables 5a and 5b)

Analysis for sucrose content was carried out during the last week of June 2018 on cane samples from miller-planters' land in all factory areas and covering the main cultivated varieties. 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 2018.

Sectors	M 52/78	M 703/89	R 573	M 695/69	R 575	M 2256/88	M 1246/84	M 387/85	M 2593/92	M 2283/98	M 1400/86	M 1176/77	M 1861/89	R 579	M 1672/90	R 570
North			13.2			14.3	11.7		11.9		9.9	12.2		11.5	11.5	9.9
East		12.5	13.2					12.1	12.1		11.0	11.8		10.1		9.8
South	14.0	12.1	12.9	13.3	13.9			12.7	11.4	10.8	11.7	12.8	13.1	11.2	11.6	9.9
West			14.3		14.3				12.4		10.8	13.5		12.5		11.9
Centre	13.8	12.8						12.1			10.5	12.2		9.5		

Table 5b. Comparison of Pol % cane (*richesse*) at the end of May and June 2016, 2017 and 2018.

Sectors	MAY			JUNE		
	2016	2017	2018	2016	2017	2018
North	10.4	7.2	9.8	13.7	9.4	11.4
East	10.3	9.0	10.6	12.6	11.3	11.1
South	10.6	8.5	10.5	13.1	10.7	12.0
West	9.6	8.4	11.4	11.5	11.1	12.8
Centre	10.9	9.5	10.8	12.7	11.6	11.7
Island	10.4	8.4	10.5	12.9	10.7	11.7

At the end of June 2018, the derived *richesse* reached 11.4% in the North, 11.1% in the East, 12.0% in the South, 12.8% in the West and 11.7% in the Centre. Compared to the corresponding period in 2017, sucrose content at end-June 2018 was higher by 2.0° in the North, 1.3° in the South and 1.7° in the West. In sectors East and Centre, it was comparable to that of the corresponding period last year. Sucrose content at the end of June, for the present crop, was inferior to that of the corresponding period in 2016 in all sectors except in the West where it was higher by 1.3°.

Improvement in *richesse* was observed from end-May 2018 up to end-June 2018 in all sectors. The highest increment of 1.6° was observed in the North followed by 1.5° in the South, 1.4° in the West, 0.9° in the Centre and 0.5° in the East. On average for the island, the increase in *richesse* was 1.2° in 2018, i.e. half the increment obtained in 2017 (2.3°) and 2016 (2.5°).

Island-wise, the *richesse* of 11.7% recorded at end of June 2018 was higher than that of the corresponding period in 2017 by 1.0° but lagged behind that of 2016 by 1.2°.

4.0 CROP 2018

Climatic conditions during June 2018 were not generally ideal for optimal sucrose accumulation. This is reflected in the sucrose accumulation of 1.2° recorded during the month of June 2018 over the island which was below those obtained during the same corresponding period in 2016 (2.3°) and 2017 (2.5°). As expected with winter conditions setting in and flowering of the crop, growth rates have slowed and stalk height at the end of June 2018 over the island was lagging behind that of June 2017 and the normal by nearly 4%.

Figure 2. Stalk height (cm) at end-June 2018

