

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2018

8 June 2018

SUGAR CANE CROP 2018

Status: End May 2018

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of May 2018 was below normal with an island average of 85 mm, representing 56% of the long-term mean (LTM) of 152 mm. Sector-wise, rainfall was lagging behind the respective LTM of the month with 19 mm in the North, 108 mm in the East, 122 mm in the South, 11 mm in the West and 120 mm in the Centre.

The rainfall over the period October 2017 to May 2018 cumulated to 1505 mm in the North, 2713 mm in the East, 2323 mm in the South, 1224 mm in the West and 2991 mm in the Centre, and represented 146%, 164%, 127%, 152% and 142% of the respective LTM. The island average of 2214 mm for this period represented 144% of the LTM (1542 mm).

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

	North	East	South	West	Centre	Island
2017	255 (277)	622 (364)	426 (224)	66 (135)	456 (227)	413 (272)
2018	19 (21)*	108 (63)	122 (64)	11 (22)	120 (60)	85 (56)
LTM	92	171	190	49	201	152

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

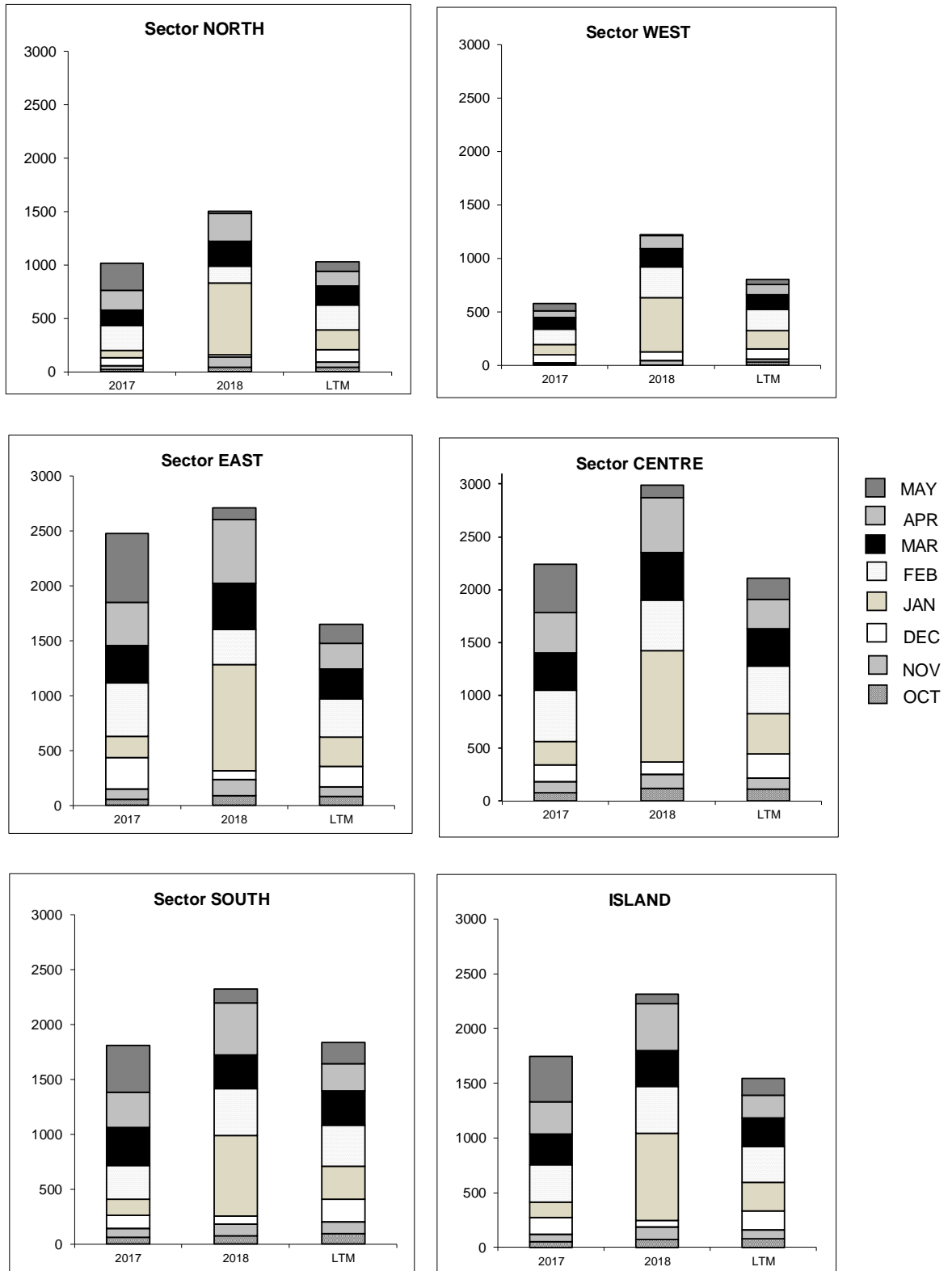
Table 1b. Cumulative rainfall (mm) from October 2017 to May 2018 for crop 2018 compared to that of crop 2017 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2017	1018 (99)	2475 (150)	1810 (99)	576 (72)	2240 (106)	1747 (113)
2018	1505 (146)*	2713 (164)	2323 (127)	1224 (152)	2991 (142)	2214 (144)
LTM	1031	1650	1835	805	2108	1542

* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October 2017 to May 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 May 2018 on MSIRI agro-meteorological stations are given below.

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

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	May 2018	DevN*	May 2018	DevN*	May 2018	DevN*
Ferret	28.0	-0.1	19.9	+1.1	8.1	-1.2
Réduit	26.2	+1.1	18.0	0.0	8.2	+1.1
Belle Rive	25.6	+0.8	17.2	+0.6	8.4	+0.2
Union Park	25.6	+1.3	18.4	+0.5	7.2	+0.8

* Deviation from the Normal (1981-2010)

Mean maximum temperature during May 2018 was above normal at all stations except at Ferret where it was close to the normal. Mean minimum temperature was equal to the normal at Réduit but higher than the normal at the other stations ranging from 0.5° at Union Park to 1.1° at Ferret. The resulting mean amplitude exceeded the normal by 0.2° at Belle Rive, 0.8° at Union Park and 1.1° at Réduit but lagged behind the normal by 1.2° at Ferret. Generally, the above normal maximum temperature favours sucrose production through photosynthesis while higher temperature amplitudes are conducive to sucrose accumulation.

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during May 2018 were above normal at all four stations. Recorded bright sunshine as a percentage of the normal amounted to 106 at both Ferret and Réduit, 113 at Belle Rive and 126 at Union Park.

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

Station	May 2018	Normal	% of Normal
Ferret	253	238	106
Réduit	231	217	106
Belle Rive	230	204	113
Union Park	204	162	126

2. STALK HEIGHT

Assessment of stalk height was done during the last week of May 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 May 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 May 2018 was lower than that of the same period in 2017 in the North and West sectors but was comparable in the other sectors. During the month of May 2018, stalk growth ranged from 4.8 cm in the Centre to 20.4 cm in the South. The elongation rates of May 2018 exceeded the normal in the South by 5.6 cm but lagged behind the normal in other sectors by 6.8 cm in the North, 4.5 cm in the East, 7.3 cm in the West and 4.1 cm in the Centre.

The island stalk elongation of 14.4 cm in May 2018 lagged behind those of the corresponding period in 2017 by 3.6 cm and the normal by 2.6 cm.

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

Sectors	Stalk elongation (cm) during May			May 2018 as a % of	
	2018	2017	Normal	2017	Normal
North	14.8	26.3	21.6	56.3	68.6
East	10.8	10.6	15.3	101.9	70.6
South	20.4	21.0	14.8	97.1	138.2
West	11.5	22.3	18.8	51.6	61.2
Centre	4.8	4.7	8.9	102.1	53.7
Island	14.4	18.0	17.0	79.8	84.6

2.2 Cumulative Elongation (Table 4b)

Stalk growth from end-December 2017 to end-May 2018 cumulated to 180.0 cm in the North, 167.1 cm in the East, 186.7 cm in the South, 176.9 cm in the West and 141.6 cm in the Centre.

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

Sectors	Cumulative elongation (cm) at end- May			End-May 2018 as a % of	
	2018	2017	Normal	2017	Normal
North	180.0	191.9	185.2	93.8	97.2
East	167.1	185.6	179.3	90.0	93.2
South	186.7	182.9	185.1	102.1	100.9
West	176.9	167.4	185.4	105.7	95.4
Centre	141.6	153.0	152.5	92.5	92.9
Island	175.4	182.0	179.6	96.3	97.6

Compared to the corresponding period in 2017, these cumulative growths were higher in the South by 3.8 cm and West by 9.5 cm. It was lagging behind by 11.9 cm in the North, 18.5 cm in the East and 11.4 cm in the Centre. For the same period, cumulative growth was comparable to the normal in the South but was lower in the other sectors ranging from 5.2 cm in the North to 12.2 cm in the East.

Island-wise the cumulative elongation of 175.4 cm in May 2018 was lower than that of the 2017 crop (182.0 cm) by 3.7 % and the normal (179.6 cm) by 2.3 %.

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

At the end of May 2018, total stalk height stood at 199.0 cm in the North, 220.8 cm in the East, 209.7 cm in the South, 218.9 cm in the West and 185.2 cm in the Centre giving an island average of 210.3 cm. Compared to the corresponding period last year, stalk height was higher by 22.6 cm in the West, but was lagging behind in the other sectors. Total stalk height at end-May 2018 was inferior to the normal in all sectors ranging from 4.8 cm in the West to 20.6 cm in the South.

At island level, total stalk height of 210.3 cm at end of May 2018 was lower than those of both the corresponding period in 2017 by 8.4 cm (3.9 %) and the normal by 11.9 cm (5.4 %).

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

Sectors	Stalk height (cm) at end-May			End-May 2018 as a % of	
	2018	2017	Normal	2017	Normal
North	199.0	211.3	209.9	94.2	94.8
East	220.8	231.2	227.2	95.5	97.2
South	209.7	223.3	230.3	93.9	91.1
West	218.9	196.3	223.7	111.5	97.8
Centre	185.2	195.9	195.4	94.5	94.8
Island	210.3	218.7	222.2	96.1	94.6

3.0 SUCROSE ACCUMULATION (Tables 5a and 5b)

Cane samples from miller-planters' land in all factory areas and covering the main cultivated varieties were analyzed for sucrose content during the last week of May 2018. 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-May 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			10.2			14.2	9.6		10.5		8.1	10.6		10.2	9.3	8.8
East		12.2	13.3			13.6		11.8	11.5		9.9	11.2		9.5		8.8
South	13.9	11.6	11.7	10.8	12.5			11.7	10.3	10.3	9.6	12.2	11.4	9.5	9.9	8.0
West			12.2		13.0				10.2		9.9	11.9		11.1		9.9
Centre	13.2	12.3						10.4			8.6	11.1		8.8		

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

Sectors	APRIL			MAY		
	2016	2017	2018	2016	2017	2018
North	8.5	6.2	6.0	10.4	7.2	9.8
East	8.8	6.8	7.3	10.3	9.0	10.6
South	8.9	7.4	7.2	10.6	8.5	10.5
West	6.9	6.0	7.7	9.6	8.4	11.4
Centre	8.8	6.2	7.4	10.9	9.5	10.8
Island	8.6	6.7	7.0	10.4	8.4	10.5

The derived *richesse* at the end of May 2018 reached 9.8% in the North, 10.6% in the East, 10.5% in the South, 11.4% in the West and 10.8% in the Centre. Compared to the corresponding period in 2017, sucrose content at end-May 2018 was higher by 2.6° in the North, 1.6° in the East, 2.0° in the South, 3.0° in the West and 1.3° in the Centre. Sucrose content at the end of May, for the present crop, was higher than that of the corresponding period in 2016 in the East and West, comparable in the South and Centre and lower in the North sector.

From end-April 2018 up to end-May 2018, *richesse* has improved in all sectors. The highest increment of 3.8° was observed in the North followed by 3.7° in the West, 3.4° in the Centre, and 3.3° in both the East and South. On average for the island, the increase in *richesse* was 3.5° in 2018, i.e. twice the increment obtained in 2017 and 2016.

Island-wise, the *richesse* of 10.5% recorded at end of May 2018 was higher than that of the corresponding period in 2017 by 2.1° and was comparable to that of 2016.

4.0 CROP 2018

The weather during May 2018 was characterized by below normal rainfall coupled with above normal sunshine duration and temperature amplitude which was more favourable to sucrose accumulation than crop growth. This is reflected in the below normal stalk elongation rate for the month and also total stalk height which remained below 5% of the normal. However, sucrose accumulation in May 2018 over the whole island is considered very satisfactory at a level which is well above that of last year and comparable to that of 2016. The crop possesses a high capacity for rapid sucrose accumulation under favourable conditions and with the onset of winter, sucrose accumulation rate is expected to increase in the coming weeks.

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

