

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2018

10 September 2018

SUGAR CANE CROP 2018

Status: End August 2018

1. CLIMATE

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

Rainfall recorded in August 2018 over the sugar cane areas was below normal with an island average of 37 mm, representing 32% of the long-term mean (LTM) of 117 mm. Sector-wise, rainfall for the month of August was well below the LTM in all sectors ranging from 2 mm in the West to 63 mm in the Centre.

The cumulative rainfall over the period October 2017 to August 2018 was 1665 mm in the North, 3074 mm in the East, 2742 mm in the South, 1263 mm in the West and 3418 mm in the Centre. These figures represented 136%, 147%, 118%, 145% and 131% of the respective LTM. The island average of 2527 mm for this period represented 132% of the LTM (1918 mm).

The month of August 2018 was dry with the first fortnight of August 2018 being one of the driest on record with only 1% of the monthly rainfall. All regions over the island had deficient rainfall.

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

	North	East	South	West	Centre	Island
2017	95 (161)	218 (158)	164 (107)	15 (88)	221 (136)	156 (133)
2018	20 (34)*	36 (26)	51 (33)	2 (12)	63 (39)	37 (32)
LTM	59	138	153	17	163	117

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

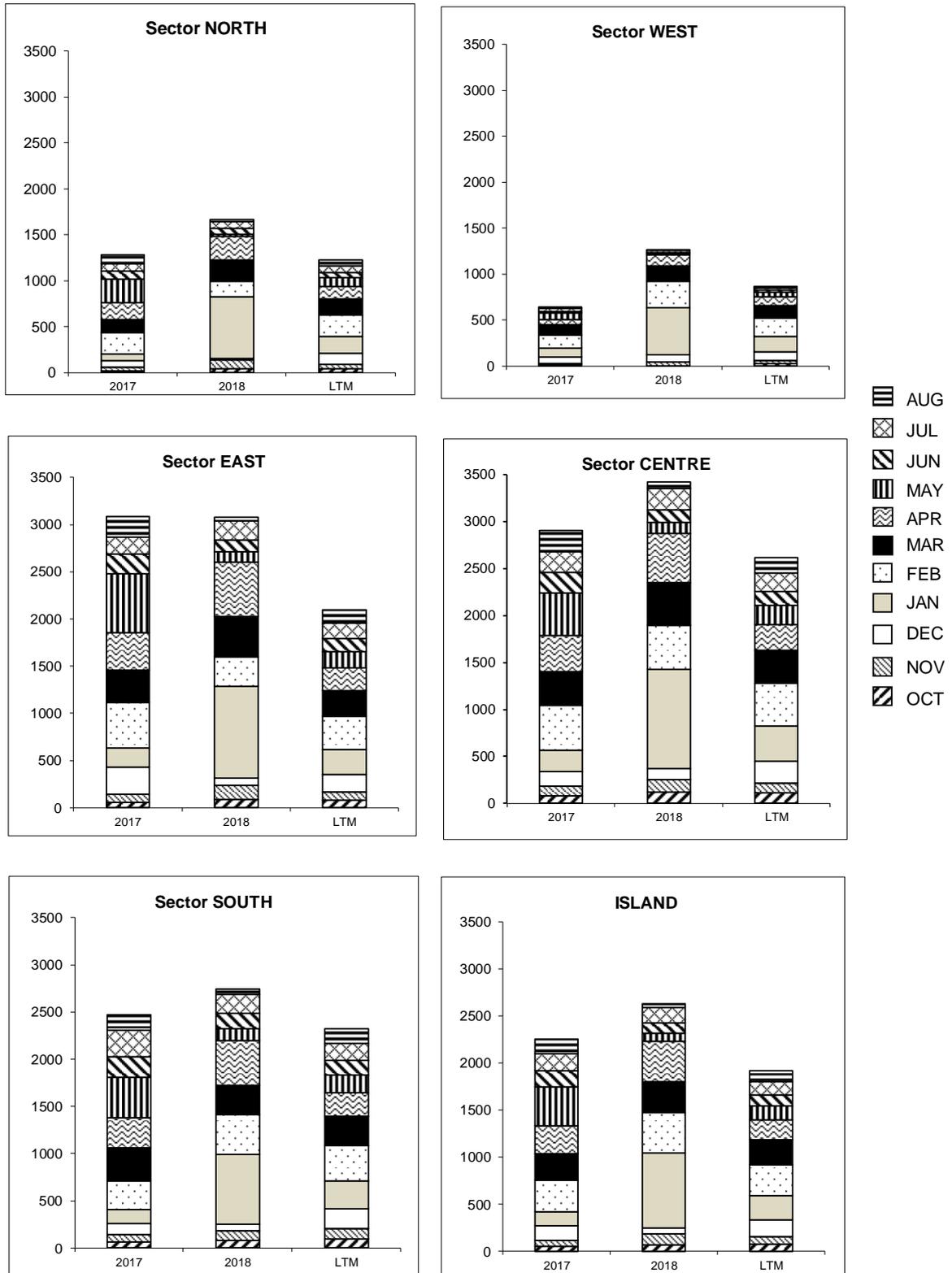
Table 1b. Cumulative rainfall (mm) from October 2017 to August 2018 for crop 2018 compared to that of crop 2017 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2017	1285 (105)	3084 (147)	2472 (106)	641 (74)	2903 (111)	2256 (118)
2018	1665 (136)*	3074 (147)	2742 (118)	1263 (145)	3418 (131)	2527 (132)
LTM	1224	2095	2322	870	2618	1918

* figures in brackets are % of LTM

[Source: raw provisional data from Mauritius Meteorological Services]

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

Table 2. Air temperatures recorded on MSIRI agro-meteorological stations in August 2018

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	August 2018	DevN*	August 2018	DevN	August 2018	DevN
Ferret	26.7	+1.0	17.4	+0.9	9.3	+0.1
Réduit	23.9	+1.4	15.3	0.0	8.6	+1.4
Belle Rive	23.3	+1.3	14.8	+0.8	8.5	+0.5
Union Park	23.6	+2.1	16.2	+0.9	7.4	+1.2

* Deviation from the Normal (1981-2010)

Mean maximum temperature during August 2018 was above normal at all stations. Mean minimum temperature at Réduit was similar to the normal but above normal by more than 0.8 °C in the other three stations. The resulting mean amplitude was comparable at Ferret but exceeded the normal by 0.5 °C at Belle Rive, 1.2 °C at Union Park and 1.4 °C at Réduit. Above normal maximum temperature favours sucrose production through photosynthesis while higher temperature amplitude is conducive to sucrose accumulation.

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during August 2018 exceeded the normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 109 at Ferret, 106 at Réduit, 120 at Belle Rive and 134 at Union Park.

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

Station	August 2018	Normal	% of Normal
Ferret	269	247	109
Réduit	234	220	106
Belle Rive	243	202	120
Union Park	191	143	134

2.0 SUCROSE ACCUMULATION (Tables 4a and 4b)

Clean cane samples from miller-planters' land were analysed during the last week of August 2018 for sucrose content. The fields chosen covered all factory areas under the main commercial 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 4a. Average Pol % cane (richesse) at end-August 2018.

Sectors	R 573	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		14.8		15.1		14.7	16.0		14.6	15.9	14.6
East									13.6		14.0
South	15.2			14.0	13.3	14.5	14.2	15.6	13.3	14.3	13.4
West	16.2			15.2		14.2	15.2		14.7		14.8
Centre			14.9			13.2	15.0		12.6		

Table 4b. Comparison of Pol % cane (richesse) at the end of July and August 2016, 2017 and 2018.

Sectors	July			August		
	2016	2017	2018	2016	2017	2018
North	14.1	11.3	12.5	14.9	12.4	15.1
East	13.5	11.7	12.4	13.8	12.8	13.8
South	14.2	10.2	12.5	14.5	12.4	14.0
West	12.9	12.1	13.4	13.1	13.3	14.8
Centre	13.4	11.1	12.0	13.8	11.9	13.7
Island	13.8	11.1	12.5	14.2	12.6	14.2

The *richesse* at end-August 2018 was 15.1% in the North, 13.8% in the East, 14.0% in the South, 14.8% in the West and 13.7% in the Centre. These values were higher than those for the corresponding period in 2017 by 2.7° in the North, 1.0° in the East, 1.6° in the South, 1.5° in the West and 1.8° in the Centre. Compared to the corresponding period in 2016, sucrose content at the end of August 2018 was comparable in the North, East and Centre, inferior in the South but exceeded that in the West by 1.7°.

Sucrose content from end-July 2018 up to end-August 2018 increased in all sectors. The highest incremental margin of 2.6° was observed in the North followed by 1.7° in the Centre, 1.5° in the South and 1.4° in the remaining two sectors. On average for the island, the increase in *richesse* was 1.7° in 2018 which was higher than that obtained in 2017 and 2016.

Island-wise, the *richesse* of 14.2% recorded at end of August 2018 was similar to the corresponding period in 2016 but higher than that of 2017 by 1.6°.

3. CROP 2018

As at 1 September 2018, 13 698 ha representing about 41% of miller-planters' land had been harvested compared to 12 524 ha (37%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 39% in the North, 44% in the East, 39% in the South, 45% in the West and 40% in the Centre. An analysis of cane productivity based on the harvest statistics for miller-planters in all sectors follows. Since all the canes from the Centre are crushed at Alteo in the East, harvest statistics relative to extraction rate and sugar productivity were combined for these two sectors.

3.1 Cane productivity (Table 5a)

Cane productivity for the island as at end-August 2018 was 73.5 TCH and was lower than that recorded in 2017 (79.0 TCH) by 5.5 TCH (7.0 %). Sector-wise, the best cane productivity to-date was recorded in the West with 79.7 TCH followed by the North (79.0 TCH), East (72.0 TCH), the South (71.9 TCH) and the Centre (60.8 TCH).

Compared to the same period last year, cane productivity recorded to-date was comparable in the North but lagged behind in the other sectors with the difference ranging from 2.8 TCH in the South to 10.3 TCH in the East.

Table 5a. Cane productivity (TCH) as at end August for the 2016, 2017 and 2018 crops

Sector	End July			End August		
	2016	2017	2018	2016	2017	2018
North	78.6	83.6	80.5	82.6	79.9	79.0
East	78.5	80.3	73.3	78.2	82.3	72.0
South	82.1	74.6	73.7	83.1	74.7	71.9
West	101.4	81.8	80.7	95.8	83.3	79.7
Centre	74.3	71.0	62.3	71.3	68.4	60.8
Island	79.8	78.7	74.3	81.3	79.0	73.5

3.2 Extraction (Table 5b, Figure 2)

The recorded island extraction rate of 9.68% at end-August 2018 was higher than that of the corresponding period in 2017 (8.84%) by 0.84° and in 2016 (9.49%) by 0.11°. Sector-wise, the extraction rate recorded was 9.77% in the North, 9.42% in the East-Centre, 9.82% in the South and 10.18% in the West. These figures exceeded those of the corresponding period in 2017 by 0.74° in the North, 0.76° in the East-Centre, 1.09° in the South and 0.65° in the West. When compared to that in 2016, extraction rate to-date was comparable in the South, higher in the East-Centre by 0.35° and West by 0.27° whereas in the North it lagged behind by 0.26°.

Extraction rate improved from end-July 2018 up to end-August 2018 in all sectors. The highest increment of 0.61° was observed in the North whilst the lowest increment of 0.26° occurred in the East-Centre. On average for the island, the increase in extraction rate from end-July to end-August was 0.42° in 2018 comparable to the 0.40° obtained in 2016 but was higher than the 0.29° recorded in 2017.

Figure 2. Evolution of extraction rate (%) for the 2016, 2017 and 2018 crops

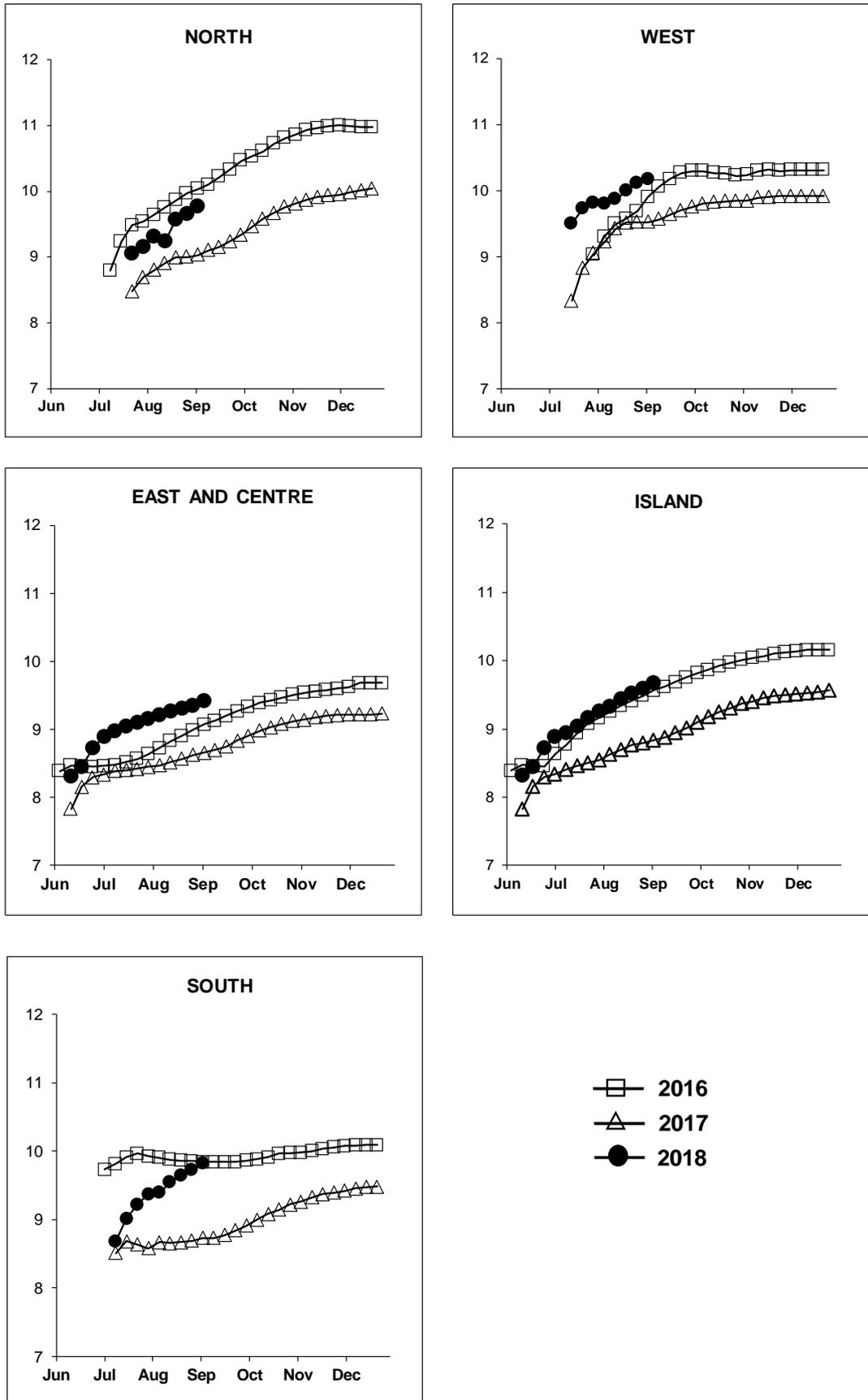


Table 5b. Extraction rate (%) as at end August for the 2015, 2016 and 2017 crops

Sectors	End July			End August		
	2016	2017	2018	2016	2017	2018
North	9.54	8.69	9.16	10.03	9.03	9.77
East/Centre	8.64	8.45	9.16	9.07	8.66	9.42
South	9.92	8.58	9.37	9.84	8.73	9.82
West	9.03	9.06	9.82	9.91	9.53	10.18
Island	9.16	8.55	9.26	9.56	8.84	9.68

3.3 Sugar productivity (Table 5c)

Island-wise, the recorded sugar productivity of 7.11 TSH was higher than that of the corresponding period in 2017 (6.98 TSH) by 0.13 tonne (1.9%) but was lagging behind that of the same period in 2016 (7.77 TSH) by 0.66 tonne (8.5%). Sector-wise sugar productivity stood at 7.72 TSH in the North, 6.61 TSH in the East-Centre, 7.06 TSH in the South and 8.11 TSH in the West. Sugar productivity at end-August 2018 was higher than that of the corresponding period in 2017 by 0.51 TSH in the North, 0.54 TSH in the South and 0.17 TSH in the West but was lagging behind by 0.35 TSH in the East-Centre. Compared to the corresponding period in August 2016, sugar productivity in 2018 lagged behind in all sectors with differences ranging from 0.38 TSH in the East-Centre to 1.38 TSH in the West.

Table 5c. Sugar productivity (TSH) as at end August for the 2016, 2017 and 2018 crops

Sectors	End July			End August		
	2016	2017	2018	2016	2017	2018
North	7.50	7.26	7.37	8.28	7.21	7.72
East/Centre	6.73	6.67	6.54	6.99	6.96	6.61
South	8.14	6.43	6.91	8.18	6.52	7.06
West	9.16	7.41	7.92	9.49	7.94	8.11
Island	7.31	6.73	6.88	7.77	6.98	7.11

4.0 CROP 2018

Weather conditions prevailing during the month of August 2018 were characterised by deficient rainfall coupled with above normal solar radiation and temperature amplitude that were more favourable to sucrose accumulation than crop growth. So far with 41% of the crop harvested on miller-planters' land, milling data indicate a lower cane productivity when compared to last year. The shortfall in cane productivity over the island stood at 5.5 TCH at end August 2018. The weather was conducive to ripening in August 2018 and was reflected in a higher extraction rate throughout the island exceeding that of last year by 0.84°. Thus, sugar productivity in August 2018 over the island was higher than that of last year by 0.13 TSH. Based on these data and with no major departure in the weather from the normal, sugar productivity is expected to be higher than that of last year.