MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2020

Status: End October 2020

1. CLIMATE

1.1 Rainfall (Table 1)

Rainfall recorded over the sugar cane areas of the island during October 2020 averaged 54 mm and represented 65% of the long-term mean (LTM, 83 mm) for the month. Rainfall was below the LTM in sectors North with 24 mm, East with 79 mm, South with 61 mm, West with 4 mm and Centre with 71 mm.

The month of October is known to be a dry month and the crop water requirements have not been met in all sectors.

Table 1. Rainfall in mm and as a percentage of the long term mean (LTM) for September and October during crops 2019 and 2020

	Crop	North	East	South	West	Centre	Island
September	**2019**	**38** *(67)*	**101** *(78)*	**134** *(99)*	**16** *(62)*	**129** *(102)*	**93** *(87)*
	2020	**30** *(53)*	**95** *(73)*	**81** *(60)*	**19** *(73)*	**112** *(89)*	**71** *(67)*
	LTM	57	130	136	26	126	106
October	**2019**	58 *(138)*	97 *(96)*	134 *(125)*	25 *(114)*	85 *(83)*	93 *(112)*
	2020	**24** *(57)**	**79** *(78)*	**61** *(57)*	**4** *(18)*	**71** *(69)*	**54** *(65)*
	LTM	42	101	107	22	103	83

* figures in brackets are % of LTM (1981-10) *Source : Mauritius Meteorological Services*

1.2 Air Temperature (Table 2)

The maximum and minimum temperatures as well as temperature amplitude for the month of October 2020 on the four MSIRI agro-meteorological stations are given below.

In October 2020, mean maximum temperature was generally above the normal at all stations except at Ferret. The mean minimum temperature exceeded the normal at all stations i.e. by 0.8 °C at Réduit, and by more than 1 °C at the other three stations. The resulting mean amplitude was below the normal at Ferret and Belle Rive but above normal at the other two stations.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in October 2020

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	Oct 2020	DevN*	Oct 2020	DevN*	Oct 2020	DevN*
Ferret	27.6	-0.6	19.5	+1.5	8.1	-2.1
Réduit	25.9	+1.0	17.8	+0.8	8.1	+0.2
Belle Rive	24.8	+0.8	16.7	+1.2	8.1	-0.4
Union Park	25.7	+2.1	17.9	+1.2	7.8	+1.3

* Deviation from the Normal (1981-2010)

1.3 Sunshine (Table 3)

During the month of October 2020, data from the MSIRI agro-meteorological stations showed that sunshine hours were comparable to the normal at Réduit but above normal at the other three stations. Recorded bright sunshine as a percentage of the normal amounted to 102% at Ferret, 100% at Réduit, 107% at Belle Rive and 132% at Union Park.

Table 3. Sunshine duration (h) recorded on MSIRI agro-meteorological stations in October 2020

Station	Oct 2020	Normal	% of Normal
Ferret	269	264	102
Réduit	256	256	100
Belle Rive	231	215	107
Union Park	227	172	132

2. SUCROSE ACCUMULATION (Tables 4a and 4b)

During the last week of October 2020, cane samples were analysed for sucrose content from miller-planters' land in all factory areas and covering the main cultivated varieties. In sector Centre, no sampling was carried out at end-October 2020 as all fields earmarked for data collection had already been harvested. The average Pol % cane (*richesse*) was calculated on the basis of area under cultivation for each variety in the different factory areas of each sector. The results were compared with those of the last two years.

At the end of October 2020, sucrose content was 16.2% in the North, 13.9% in the East, 14.5% in the South and 14.9% in the West. These values when compared to those of the corresponding period in 2019 were higher by 0.9° in the North and 0.3° in both the East and West while in the South it was comparable. Compared to the corresponding period in 2018, *richesse* at end-October 2020 was lower in all sectors except in the North sector where it was higher by 0.4°.

Island-wise, the *richesse* of 14.7% recorded at end of October 2020 was higher than that of the corresponding period in 2019 by 0.4° but was lagging behind that of 2018 by 0.3°.

Table 4a. Average Pol % cane (richesse) in different varieties at end-October 2020.

Variety	North	East	South	West
R 573				14.0
M 1246/84	15.7			
M 2593/92	15.8		15.4	
M 1400/86	17.4			
M 1176/77	16.6			
R 579	16.2	13.5	13.8	14.9
M 1672/90	17.3			
R 570	14.7	14.6	15.3	
M 1392/00	16.2			
M 683/99	15.9			
M 1561/01		14.6		
M 915/05	16.3			
M 1002/02	17.2			

Table 4b. Comparison of Pol % cane (richesse) at the end of September and October 2018, 2019 and 2020.

Sectors	SEPTEMBER			OCTOBER		
	2018	2019	2020	2018	2019	2020
North	15.7	14.8	15.8	15.8	15.3	16.2
East	14.2	13.5	13.8	14.1	13.6	13.9
South	14.8	14.0	14.9	15.4	14.4	14.5
West	15.1	15.0	14.8	15.3	14.6	14.9
Centre	13.2	12.4	13.3	13.4	13.2	–
Island	**14.7**	**14.0**	**14.6**	**15.0**	**14.3**	**14.7**

3. CROP PRODUCTIVITY 2020

As at 31 October 2020, 22 117 ha representing 75% of miller-planters' land had been harvested compared to 20 537 ha (66%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 60% in the North, 78% in the East, 80% in the South, 85% in the West and 71% in the Centre. An analysis of cane productivity based on the harvest statistics for miller-planters follows.

3.1 Cane productivity (Table 5a)

As at end-October 2020, cane productivity for the island was 67.1 TCH and was lower than that recorded in 2019 (81.9 TCH) by 14.8 TCH (18.1 %). Sector-wise, cane productivity to-date recorded was 70.8 TCH in the North, 68.2 TCH in the East, 67.9 TCH in the South, 65.4 TCH in the West and 50.9 TCH in the Centre. Compared to the same period in 2019, cane productivity recorded to-date was lagging behind in all sectors by 10.1 TCH in the North, 12.7 TCH in the East, 15.4 TCH in the South, 24.7 TCH in the West and 18.5 TCH in the Centre.

When compared to the corresponding period in 2018, cane productivity in October 2020 was lower in all sectors by 2.5 TCH in the North, 0.7 TCH in the East, 3.4 TCH in the South, 14.8 TCH in the West and 3.0 TCH in the Centre.

Table 5a. Cane productivity (TCH) as at end-September and end-October for the 2018, 2019 and 2020 crops

Sector	End September			End October		
	2018	2019	2020	2018	2019	2020
North	76.1	82.0	75.2	73.3	80.9	70.8
East	70.5	81.8	70.9	68.9	80.9	68.2
South	72.0	83.0	70.8	71.3	83.3	67.9
West	78.6	89.7	67.9	80.2	90.1	65.4
Centre	58.0	72.1	53.9	53.9	69.4	50.9
Island	**72.3**	**82.4**	**70.0**	**71.1**	**81.9**	**67.1**

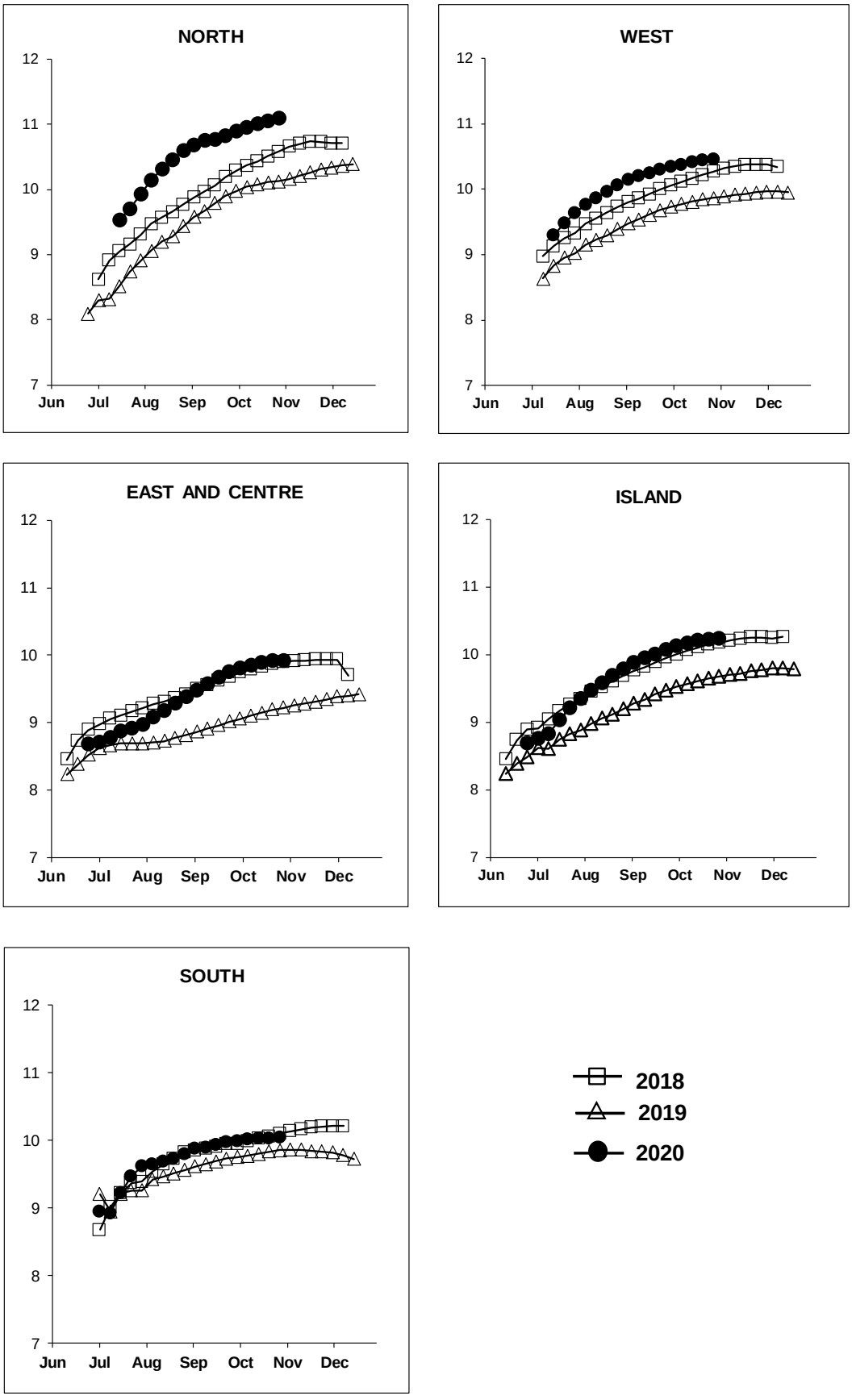
3.2 Extraction (Table 5b, Figure 1)

The island extraction rate of 10.24% at end-October 2020 was higher than that at the corresponding period in 2019 (9.67%) and 2018 (10.17%). Sector-wise, the extraction rate recorded was 11.10% in the North, 9.91% in in the East-Centre, 10.04% in the South and 10.46% in the West. Compared to the corresponding period last year, extraction rate to-date was higher in all sectors, the difference ranging from 0.19 ^{o} in the South to 0.97^{o} in the North. The extraction rate of October 2020 as compared to that of October 2018 was higher in sectors North and West, comparable in the East-Centre but lower in the South.

Table 5b. Extraction rate (%) as at end-September and end-October for the 2018, 2019 and 2020 crops

Sectors	End September			End October		
	2018	2019	2020	2018	2019	2020
North	10.19	9.98	10.90	10.58	10.13	11.10
East/Centre	9.68	9.05	9.80	9.90	9.22	9.91
South	9.94	9.75	9.99	10.10	9.85	10.04
West	10.00	9.73	10.34	10.27	9.87	10.46
Island	**9.95**	**9.52**	**10.12**	**10.17**	**9.67**	**10.24**

Figure 1. Evolution of extraction rate (%) for the 2018, 2019 and 2020 crops



3.3 Sugar productivity (Table 5c)

Island-wise, the recorded sugar productivity of 6.87 TSH was lower than that at the corresponding period in 2019 (7.92 TSH) by 1.05 tonne (13.3%). Sector-wise, sugar productivity was 7.86 TSH in the North, 6.46 TSH in the East-Centre, 6.82 TSH in the South and 6.84 TSH in the West. Compared to the corresponding period in 2019, these figures were lagging behind in all sectors by 0.34 TSH in the North, 0.83 in the East-Centre, 1.39 TSH in the South and 2.05 TSH in the West. Sugar productivity in October 2020 was also inferior to that of October 2018 in all sectors except in the North.

Table 5c. Sugar productivity (TSH) as at end-September and end-October for the 2018, 2019 and 2020 crops

Sectors	End September			End October		
	2018	**2019**	**2020**	**2018**	**2019**	**2020**
North	7.75	8.18	8.20	7.76	8.20	7.86
East/Centre	6.63	7.27	6.65	6.57	7.29	6.46
South	7.16	8.09	7.07	7.20	8.21	6.82
West	7.86	8.73	7.02	8.24	8.89	6.84
Island	**7.19**	**7.84**	**7.08**	**7.23**	**7.92**	**6.87**

4. CROP 2020

Weather recorded during October 2020 has been dry, hot and sunny which is typical of the month. As such no significant change was observed in the crop's performance in all sectors. The month of October 2020 was also characterised by a lower cane and sugar productivity compared to the same period in 2019. The decreasing trend in cane yield also accentuated, the difference which was 15% at the end of September now reached 18.1%. Concurrently extraction rate over the island reached its peak and the curve has started to flatten. Thus, the lag of 9.7% observed in sugar productivity at the end of September 2020 compared to that of the same month in 2019 has further increased to reach 13.3% at end-October 2020. This situation is unlikely to improve in the coming of the summer dry months and with the delay in expected summer rain as forecast by the Mauritius Meteorological Services. Thus, all efforts should be geared towards completing the harvest of the remaining standing crop as earliest as possible.