

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2013

Status: End August 2013

1. CLIMATE

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

Rainfall recorded during the month of August 2013 over the sugar cane areas of the island was below normal with an average of 118 mm which represented 94% of the long-term mean. Sector-wise, rainfall for the month of August was below the long-term mean in the North with 49 mm, the South with 139 mm and the Centre with 161 mm. The 159 mm rainfall received in the East sector and 37 mm in the West exceeded the long-term mean by 39% and 42% respectively.

Cumulative rainfall for the period October 2012 to August 2013 amounted to 1899 mm for the island, representing 97% of the island long-term mean of 1962 mm. During the same period 1093 mm were recorded in the North, 2317 mm in the East, 2269 mm in the South, 713 mm in the West and 2412 mm in the Centre. Compared to their respective long-term mean, cumulative rainfall represented 84%, 117%, 93%, 79% and 91% of the respective long-term means.

Table 1a Rainfall (mm) in August for crops 2012, 2013 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2012	46 (68)	148 (130)	94 (52)	4 (15)	116 (60)	92 (74)
2013	49 (72)*	159 (139)	139 (77)	37 (142)	161 (84)	118 (94)
LTM	68	114	180	26	192	125

* figures in brackets are % of LTM (1971-00)

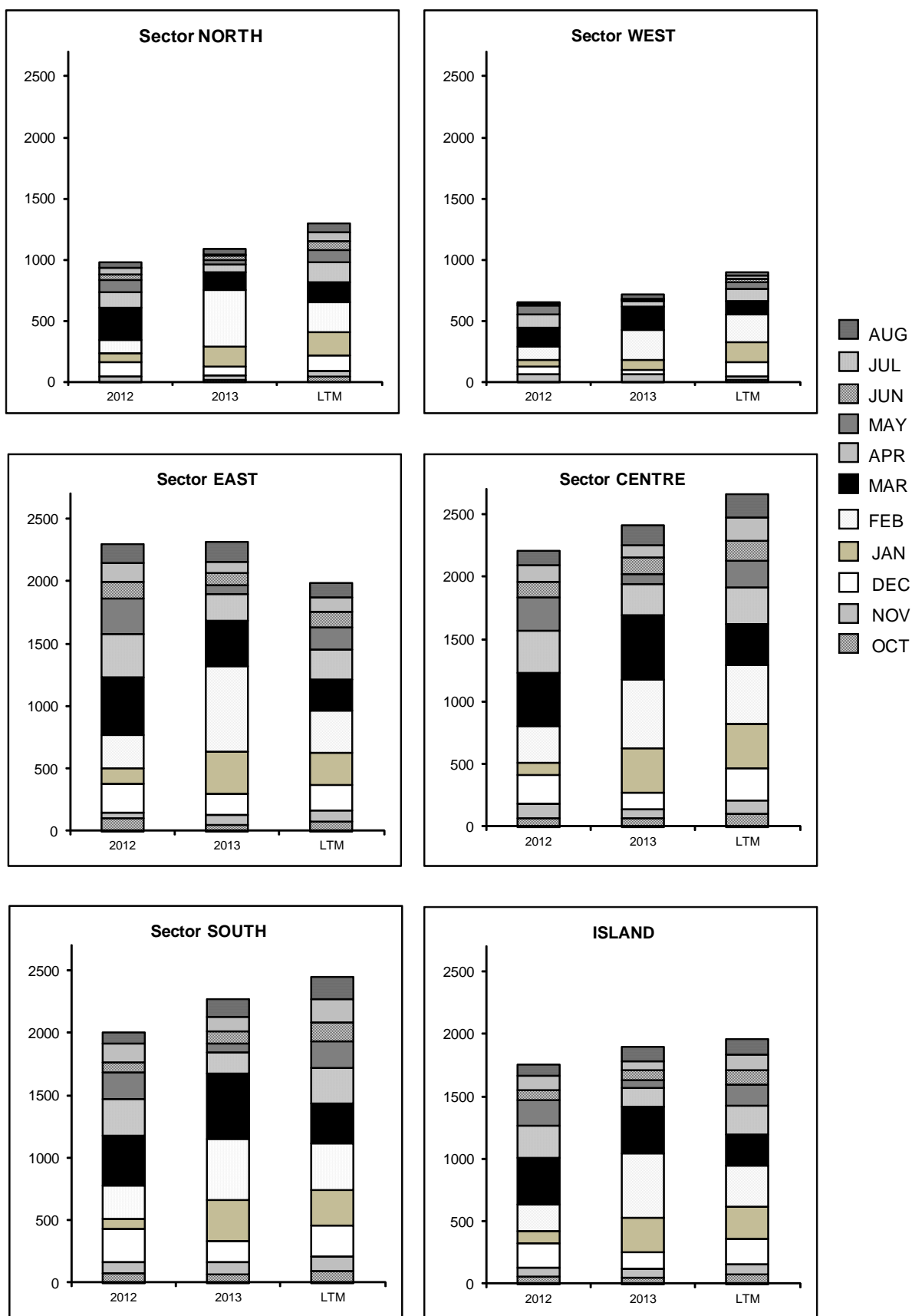
Table 1b Cumulative rainfall (mm) from October 2012 to August 2013 for crop 2013 compared to crop 2012 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2012	978 (75)	2292 (115)	2004 (82)	646 (72)	2204 (83)	1754 (89)
2013	1093 (84)*	2317 (117)	2269 (93)	713 (79)	2412 (91)	1899 (97)
LTM	1297	1986	2445	898	2663	1962

* figures in brackets are % of LTM (1971-00)

[Source : Mauritius Meteorological Services]

Figure 1 Monthly rainfall (mm) for the period October 2012 to August 2013 for the 2013 crop



1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of August 2013 on MSIRI agro-meteorological stations are given below.

The mean monthly maximum temperature was above normal by 0.5°C at Réduit, 0.6°C at Pamplémousses and 0.8°C at Union Park whereas at Belle Rive it was comparable to the normal. The mean minimum temperature was above normal at all stations, the difference ranging from 0.2°C at Réduit to 0.9°C at Belle Rive. Consequently, the resulting mean amplitude was lower than the normal by 0.8°C at Belle Rive, comparable to the normal at Pamplémousses but higher than normal at Réduit and Union Park by 0.3°C and 0.2°C, respectively.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in August 2013

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
Pamplémousses	26.3 (25.7) *	17.0 (16.5)	9.3 (9.2)
Réduit	23.0 (22.5)	15.5 (15.3)	7.5 (7.2)
Belle Rive	22.1 (22.0)	14.9 (14.0)	7.2 (8.0)
Union Park	22.3 (21.5)	15.9 (15.3)	6.4 (6.2)

* figures in brackets are the Normal (1981-2010)

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations during August 2013 showed that above normal sunshine hours were recorded at all stations. Recorded bright sunshine as a % of the normal amounted to 109 at both Pamplémousses and Réduit, 110 at Belle Rive and 108 at Union Park.

Table 3 Sunshine duration (hr) recorded on MSIRI agro-meteorological stations in August 2013

Station	August 2013	Normal (1981-2010)	% of Normal
Pamplémousses	269	247	109
Réduit	240	220	109
Belle Rive	223	202	110
Union Park	155	143	108

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

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 August 2013. 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 are compared with those of the last two years.

Table 4a Average Pol % Cane (*richesse*) at end August 2013

Sectors	M 52/78	R 573	R 575	M 387/85	M 1246/84	M 2593/92	M 1400/86	M 1176/77	M 1861/89	R 579	M 3035/66	M 1672/90	R 570
North		15.9			15.3	15.5	14.7	15.5		14.1		15.3	14.1
East					14.0	14.5	14.8	15.6		14.2			14.6
South		15.5					15.6	15.5	16.3	14.3		13.3	14.8
West			15.3			15.5	14.6	15.4		16.0			13.4
Centre	16.1	14.7		14.8				15.1		13.4	14.0		13.2

The *richesse* at end-August 2013 was 15.0% in the North, 14.6% in the East, 15.1% in the South, 15.2% in the West and 14.5% in the Centre. Sucrose content to date, when compared to the corresponding period in 2012, was comparable in the East, West and Centre but higher by 0.8° in the North and 0.6° in the South. Sucrose content at the end of August 2013 was higher than in August 2011 in all sectors.

Table 4b Comparison of Pol % Cane (*richesse*) at the end of July and August 2011, 2012 and 2013

Sectors	JULY			AUGUST		
	2011	2012	2013	2011	2012	2013
North	12.3	12.9	15.2	13.3	14.2	15.0
East	12.4	13.6	14.0	13.5	14.6	14.6
South	12.6	13.3	14.9	13.6	14.5	15.1
West	13.4	13.2	13.7	14.4	15.3	15.2
Centre	13.9	13.6	13.9	14.1	14.4	14.5
Island	12.6	13.3	14.5	13.6	14.5	14.9

During the period end-July 2013 to end-August 2013, *richesse* has regressed by 0.2° in the North whereas in the other sectors, it has improved by 0.6° in the East, 0.2° in the South, 1.5° in the West and 0.6° in the Centre. During the corresponding period last year, the increments were 1.3° in the North, 1.0° in the East, 1.2° in the South, 2.1° in the West and 0.8° in the Centre. On average for the island, the increase in *richesse* in 2013 of 0.4° was lower than the 1.2° and 1.0° obtained in 2012 and 2011 respectively for the same period.

Island-wise and for corresponding periods, the *richesse* of 14.9% recorded at the end of August 2013 was higher than that of 2012 (14.5%) by 0.4° and that of 2011 (13.6%) by 1.3°.

3. CROP PRODUCTIVITY 2013

As at 31 August 2013, 12 751 ha, representing 36.8% of miller-planters' land had been harvested compared to 12 239 ha (34.7%) at the same period last year. Sector-wise and for miller-planters only, the harvested area reached 27.1% in the North, 46.7% in the East, 35.6% in the South, 25.4% in the West and 46.4% in the Centre. An analysis of cane productivity based on the harvest statistics for miller-planters in all sectors follows. Owing to the centralization of milling activities and as all the canes from the Centre are crushed at FUEL, harvest statistics relative to extraction rate and sugar productivity have been combined for these two sectors.

3.1 Cane productivity (Table 5a)

Cane productivity for the island as at 31 August 2013 amounted to 75.9 TCH and was again lower than the 77.9 TCH recorded in 2012 by 2.0 TCH (2.6%). Sector-wise, the West recorded the best cane productivity to-date with 79.9 TCH, followed by the South (79.1 TCH), the East (75.7 TCH), the North (71.7 TCH) and the Centre (68.9 TCH). Compared to the same period in 2012, cane productivity recorded to-date was higher in the South by 1.3 TCH but lagged behind in the other sectors by 6.9 TCH in the North, 1.0 TCH in the East, 0.7 TCH in the West and 10.1 TCH in the Centre.

Table 5a Cane productivity (TCH) as at end July and August for the 2012 and 2013 crops

Sectors	End July		End August	
	2012	2013	2012	2013
North	76.2	73.3	78.6	71.7
East	74.1	73.7	76.7	75.7
South	79.1	79.2	77.8	79.1
West	75.7	89.0	80.6	79.9
Centre	76.4	71.1	79.0	68.9
Island	76.4	75.9	77.9	75.9

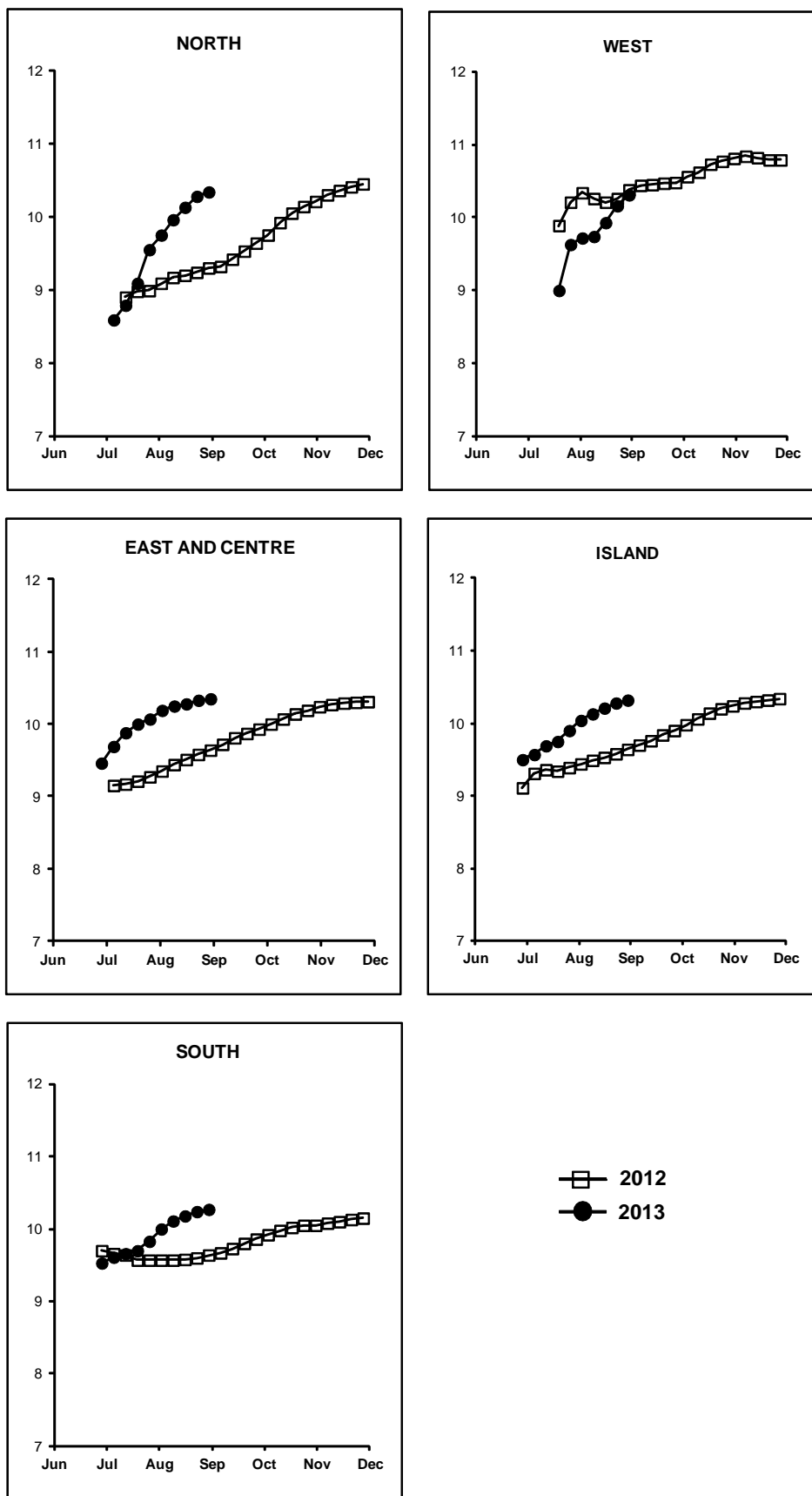
3.2 Extraction (Table 5b, figure 2)

The recorded island extraction rate of 10.32% was higher than that at the corresponding period in 2012 (9.64%) by 0.68%.

Table 5b Cumulative extraction rate (%) as at end July and August for the 2012 and 2013 crops

Sectors	End July		End August	
	2012	2013	2012	2013
North	8.99	9.55	9.30	10.34
East /Centre	9.27	10.07	9.64	10.35
South	9.57	9.83	9.64	10.27
West	10.21	9.63	10.38	10.31
Island	9.39	9.90	9.64	10.32

Figure 2 Evolution of extraction rate (%) for the 2012 and 2013 crops.



Sector-wise, it was 10.34% in the North, 10.35% in the East/Centre, 10.27% in the South and 10.31% in the West. Compared to end-August of last year, extraction rate was higher in the North by 1.04°, in the East/Centre by 0.71° and in the South by 0.63°. In the West sector, extraction rate recorded to-date was slightly lower than that of last year by 0.07°.

3.3 Sugar productivity (Table 5c)

Island-wise, the recorded sugar productivity of 7.83 TSH was higher than that at the corresponding period in 2012 (7.51 TSH) by 0.32 tonne (4.5%). Sector-wise sugar productivity was 7.41 TSH in the North, 7.71 TSH in the East/Centre, 8.12 TSH in the South and 8.24 TSH in the West. Compared to the corresponding period in 2012, sugar productivity to-date was higher by 0.10 TSH in the North, 0.29 TSH in the East/Centre and 0.62 TSH in the South, whereas in the West, it was lower by 0.13 TSH.

Table 5c Sugar productivity (TSH) as at end July and August for the 2012 and 2013 crops

Sectors	End July		End August	
	2012	2013	2012	2013
North	6.85	7.00	7.31	7.41
East / Centre	6.89	7.38	7.42	7.71
South	7.57	7.79	7.50	8.12
West	7.73	8.57	8.37	8.24
Island	7.17	7.51	7.51	7.83

4. CROP 2013

So far with about 37% 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 which stood at 0.5 TCH at end July 2013 has reached 2.0 TCH at end-August 2013. This low cane productivity can be attributed to the prevailing weather conditions in terms of deficit rainfall since the start of the ripening phase. In the rainfed crops of the North, West and the lowland areas of the East and South sectors, the water stress conditions are apparent in the fields in terms of yellowing of leaves, reduction in the number of green leaves, arrested stalk elongation and stalk desiccation. Besides, unscheduled cane fires have disrupted the harvesting programme resulting in milling of physiologically sub-optimal canes in certain regions during the month.

Weather in terms of solar radiation and temperature amplitude during August 2013 was conducive to sucrose accumulation and this is reflected in a better extraction rate throughout the island, except in the West, compared to the same period last year. Thus, sugar productivity in August 2013 exceeded that of last year in all sectors apart from the West.

With the persisting dry conditions the trend in extraction rate has started to plateau in sectors North, East-Centre and South. Moreover, with the setting in of summer with relatively higher temperatures, no major improvement in ripening is expected. Since cane productivity is decreasing and extraction rate is increasing at a very low pace, sugar productivity is therefore not expected to improve substantially.