

MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Ref A 1/2011

6 September 2011

SUGAR CANE CROP 2011

Status: End August 2011

1. CLIMATE`

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

Rainfall recorded in August over the sugar cane areas of the island was above normal with an average of 192 mm which represented 151% of the long-term mean. Sector-wise, rainfall for the month of August exceeded the long-term mean by 69% (47 mm) in the North, 144% (164 mm) in the East, 16% (28 mm) in the South, 96% (25 mm) in the West and 6% (12 mm) in the Centre.

Cumulative rainfall for the period October 2010 to August 2011 amounted to 1887 mm for the island. This is 5% lower than the island long-term mean of 1976 mm. During the same period, a total of 1362 mm was recorded in the North, 2558 mm in the East, 1923 mm in the South, 943 mm in the West and 1928 mm in the Centre. Compared to their respective long-term mean, cumulative rainfall represented 105% in the North, 129% in the East, 79% in the South, 105% in the West and 72% in the Centre.

Table 1a. Rainfall (mm) of August for crops 2010 and 2011 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2010	105 (154)	229 (201)	175 (97)	29 (112)	233 (121)	167 (131)
2011	115 (169)	278 (244)	208 (116)	51 (196)	204 (106)	192 (151)
LTM	68	114	180	26	192	128

* Figures in brackets are % of LTM

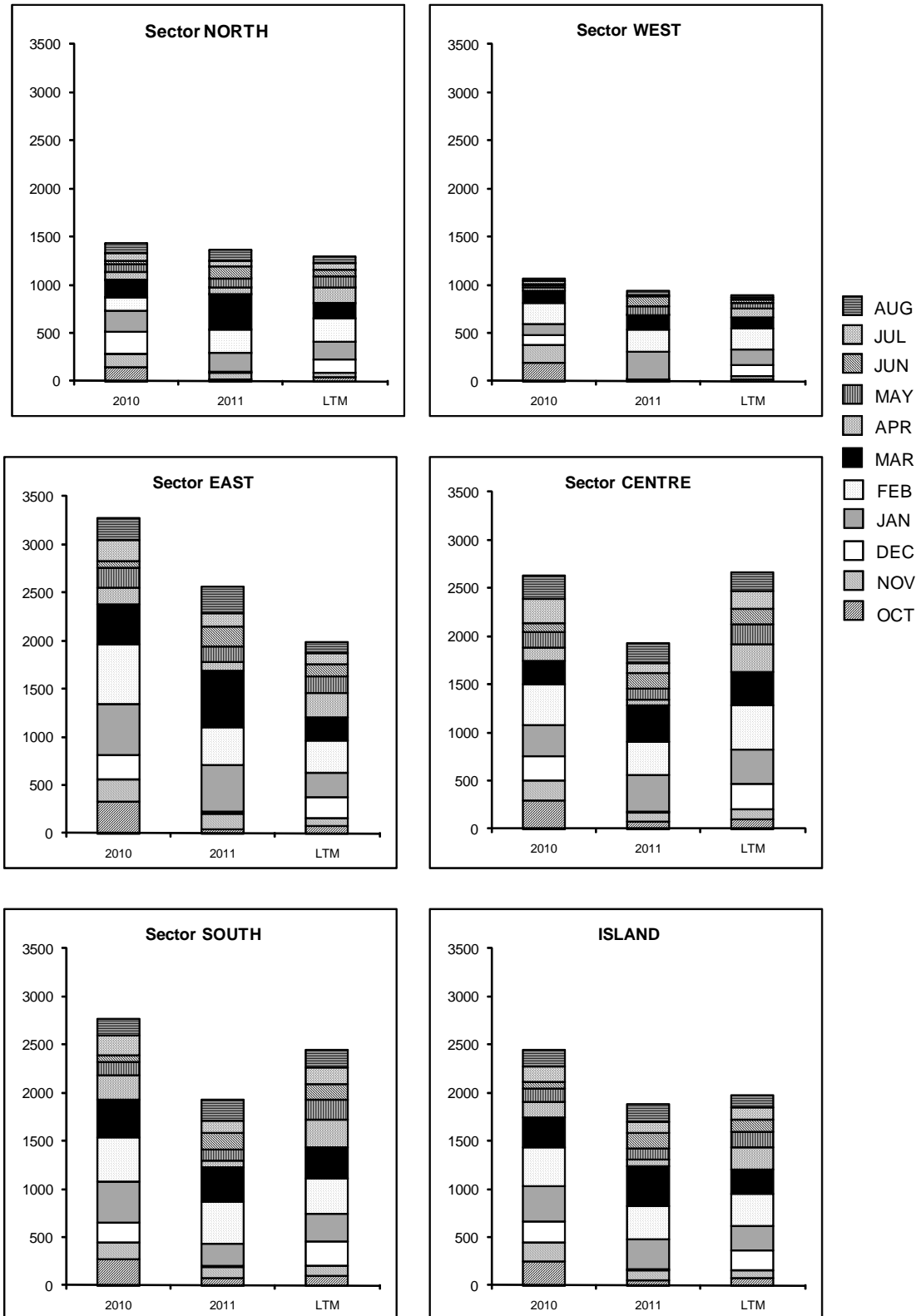
Table 1b. Cumulative rainfall (mm) from October 2010 to August 2011 for crop 2011 compared to that of crop 2010 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2010	1435 (111)	3271 (165)	2773 (113)	1066 (119)	2607 (98)	2446 (124)
2011	1362 (105)	2558 (129)	1923 (79)	943 (105)	1928 (72)	1887 (95)
LTM	1296	1986	2445	898	2664	1976

* Figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period Oct 2010 to August 2011 for crop 2011 compared to the corresponding period of crop 2010 and to the long term mean (LTM)



1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of August 2011 on MSIRI agro-meteorological stations are given below.

The mean maximum temperature was close to the normal at Pamplémousses. It exceeded the normal by 0.7 °C at Réduit, 0.5 °C at Belle Rive and 1.5 °C at Union Park. The mean minimum temperature was below the normal at Réduit by 0.2 °C, but above normal by 0.2 °C at Pamplémousses, 0.8 °C at Union Park and 0.9 °C at Belle Rive. The resulting mean amplitude was above normal at Réduit and Union Park whereas at the other two stations, it was below normal.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in August 2011

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
Pamplémousses	25.6 (25.7) *	16.7 (16.5)	8.9 (9.2)
Réduit	23.2 (22.5)	15.1 (15.3)	8.1 (7.2)
Belle Rive	22.5 (22.0)	14.9 (14.0)	7.6 (8.0)
Union Park	23.0 (21.5)	16.1 (15.3)	6.9 (6.2)

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

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during August 2011 were below normal at Pamplémousses and Réduit but exceeded the normal at Union Park whereas at Belle Rive it was similar to the normal. Recorded bright sunshine as a percentage of the normal amounted to 92 at Pamplémousses, 95 at Réduit, 100 at Belle Rive and 107 at Union Park.

Table 3. Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in August 2011

Station	August 2011	Normal	% of Normal
Pamplémousses	227	247	92
Réduit	209	220	95
Belle Rive	202	202	100
Union Park	153	143	107

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 at end August 2011. 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 2010 and 2009.

Table 4a Average Pol % Cane (*richesse*) at end-August 2011.

Sectors	M 52/78	M 703/89	R 573	M 695/69	R 575	M 387/85	M 1246/84	M 2593/92	M 1400/86	M 1176/77	M 1861/89	R 579	M 1394/86	M 3035/66	M 1672/90	R 570
North							12.8	13.6	13.6	13.4		13.1			13.8	12.7
East			14.2				13.6		13.7	13.1		13.1				13.9
South			14.2	14.0	14.7			14.5	13.5	14.2	15.8	12.7	13.7		11.5	12.9
West			14.5		15.3			13.6	13.3	14.6		14.7				12.8
Centre	15.8	13.6	15.0			14.0			14.4	13.3		13.5		12.9		12.7

Table 4b. Comparison of Pol % Cane (*richesse*) of July and August 2009, 2010 and 2011

Sector	JULY			AUGUST		
	2009	2010	2011	2009	2010	2011
North	13.8	14.0	12.3	14.4	14.8	13.3
East	13.5	13.6	12.4	14.6	14.5	13.5
South	13.2	14.0	12.6	14.1	14.9	13.6
West	14.0	14.4	13.4	14.8	15.7	14.4
Centre	12.5	13.5	13.9	13.4	13.8	14.1
Island	13.4	13.9	12.6	14.3	14.7	13.6

At end-August 2011, *richesse* stood at 13.3% in the North, 13.5% in the East, 13.6% in the South, 14.4% in the West and 14.1% in the Centre. Compared to the corresponding period in 2010, *richesse* was inferior by 1.5° in the North, 1.0° in the East and 1.3° in both the South and West. In the Centre, it was higher by 0.3°. Compared to the corresponding period in 2009, sucrose content at the end of August for the present crop was higher only in the Centre by 0.7°. In the remaining sectors, it was lower by 1.1° in the North and East, 0.5° in the South and 0.4° in the West.

From end-July 2011 up to end-August 2011, *richesse* has improved in all sectors. The increment was 1.1° in the East, 1.0° in sectors North, South and West, and 0.2° in the Centre. For the corresponding period last year, the increments were 0.8° in the North, 0.9° in the East and South, 1.3° in the West and 0.3° in the Centre. On average for the island, the increase in *richesse* during August was 1.0° in 2011 compared to 0.8° in 2010 and 0.9° in 2009 for the same period.

Island-wise, the *richesse* of 13.6% at the end of August 2011 was inferior to the 14.3% of 2009 and 14.7% of 2010.

3. CROP 2011

As at 27 August 2011, 12 924 ha (36%) of miller-planters' land had been harvested compared to 13 000 ha (37%) at the same period last year. Sector-wise and for miller-planters only, the harvested area reached 25% in the North, 48% in the East, 34% in the South, 27% in the West and 43% in the Centre. An analysis of cane productivity based on the harvest statistics for

millers-planters in all sectors follows. Because of the centralization of milling activities and since 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 27 August 2011 amounted to 76.8 TCH and was lower than the 84.4 TCH recorded at the same period in 2010 by 7.6 TCH (9%). Sector-wise, the highest cane productivity to-date was again recorded in the West with 90.9 TCH, followed by the North (80.8 TCH), the South (78.5 TCH), the East (72.4 TCH) and the Centre (71.5 TCH). Compared to the same period in 2010, cane productivity recorded to-date in all sectors was lower, the difference being 12.2 TCH in the North, 7.8 TCH in East, 5.3 TCH in the South, 6.2 TCH in the West and 6.6 TCH in the Centre.

Table 5a Cane productivity (TCH) as at end July and August for the 2010 and 2011 crops

Sectors	End July		End August	
	2010	2011	2010	2011
North	87.8	81.3	93.0	80.8
East	78.9	70.0	80.2	72.4
South	83.8	76.1	83.8	78.5
West	97.4	93.2	97.1	90.9
Centre	82.4	71.0	78.1	71.5
Island	83.0	73.9	84.4	76.8

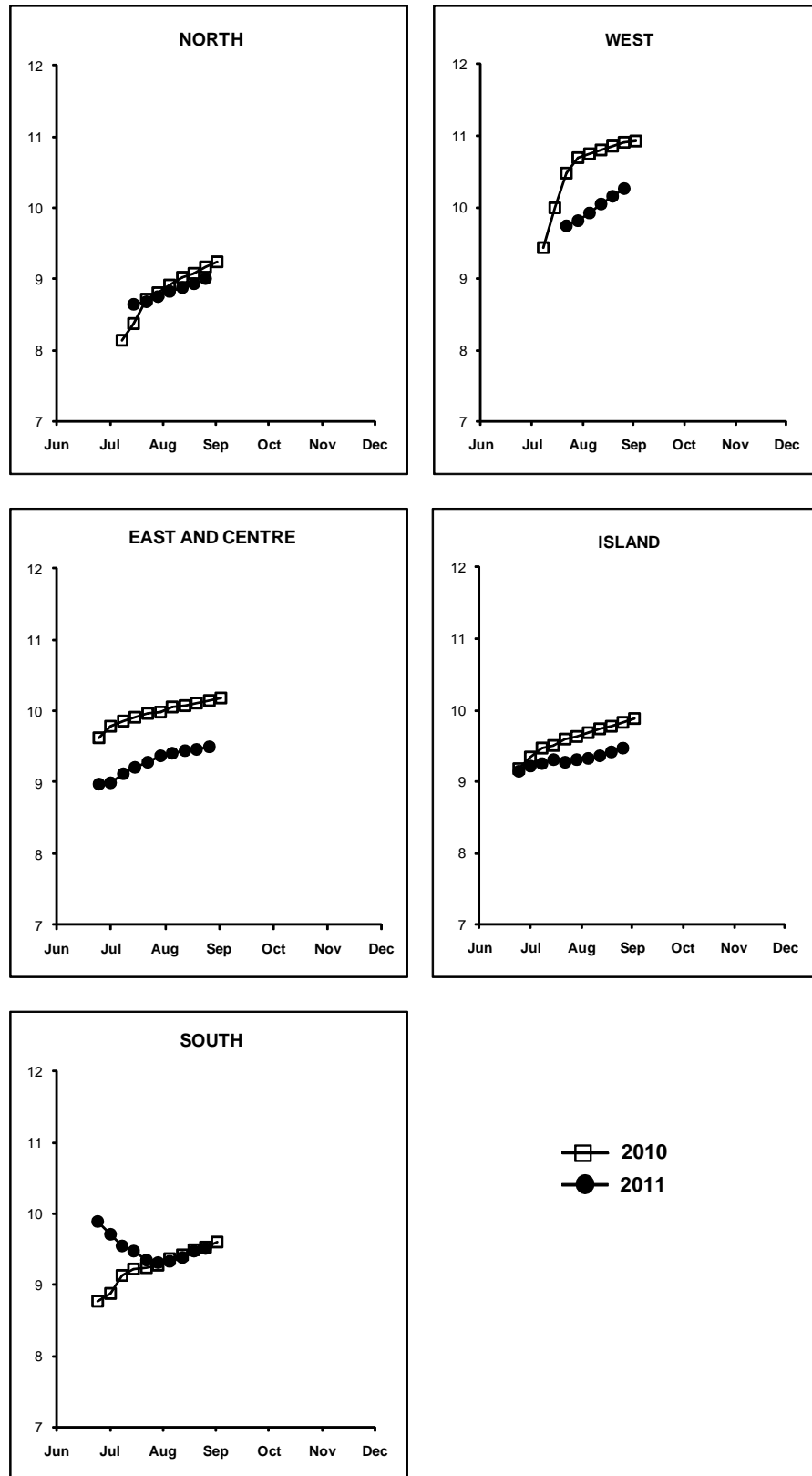
3.2 Extraction (Table 5b, Figure 2)

The recorded island extraction rate of 9.47% was lower than at the corresponding period in 2010 (9.83%) by 0.36%. Sector-wise, it was 9.01% in the North, 9.49% in the East-Centre, 9.52% in the South and 10.26% in the West. Compared to end-August of last year, extraction rate is comparable in the South but lagged by 0.16% in the North, 0.66% in the East-Centre and 0.65% in the West.

Table 5b. Cumulative Extraction rate (%) as at end July and August for the 2009 and 2010 crops

Sectors	End July		End August	
	2010	2011	2010	2011
North	8.80	8.76	9.17	9.01
East /Centre	9.99	9.37	10.15	9.49
South	9.28	9.31	9.53	9.52
West	10.70	9.82	10.91	10.26
Island	9.63	9.30	9.83	9.47

Figure 2. Evolution of extraction rate (%) for the 2010 and 2011 crops



3.3 Sugar productivity (Table 5c)

Island-wise, the recorded sugar productivity of 7.27 TSH was much lower, 1.03 tonne (12%) less than that at the corresponding period in 2010 (8.30 TSH). Sector-wise sugar productivity was 7.28 TSH in the North, 6.85 TSH in the East-Centre, 7.47 TSH in the South and 9.33 TSH in the West. Sugar productivity was lower than that at the corresponding period in 2010 in all sectors, the difference amounting to 1.25 TSH in the North and the East-Centre, 0.52 TSH in the South and 1.26 TSH in the West.

Table 5c Sugar productivity (TSH) as at end July and August for the 2010 and 2011 crops

Sectors	End July		End August	
	2010	2011	2010	2011
North	7.73	7.12	8.53	7.28
East / Centre	7.94	6.58	8.10	6.85
South	7.78	7.08	7.99	7.47
West	10.42	9.15	10.59	9.33
Island	7.99	6.87	8.30	7.27

4. CROP PRODUCTIVITY 2011

Weather experienced during August 2011 has not been conducive to sucrose accumulation and ripening in all sectors except the West. Rainfall exceeded the crop water requirements in most sectors, with a lower temperature amplitude adding in some instances to the detrimental effect of too much soil moisture. Thus, the increase in sucrose content can be considered to be on the low side when compared to the high potential that was possible. Cane productivity remained below those of last year as a result of unfavourable weather that did prevail during the growth and development phases. With about one third of the crop already harvested, it is clear now that the 2011 crop will be below that of last year even if sugar productivity has slightly improved and the margin is now 12.4% against 14.0% at end-July.