

MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

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8 July 2011

SUGAR CANE CROP 2011

Status: End June 2011

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of June was above normal with an island average of 162 mm, representing 134% of the long-term mean of 120 mm. Above normal rainfall was recorded in sectors North, East, South and West with 123 mm, 203 mm, 171 mm and 101 mm, which represented 171%, 165%, 109% and 306% of their long-term mean, respectively. In the Centre, the recorded 159 mm of rain was close to the normal of 163 mm.

Rainfall for the period October 2010 to June 2011 cumulated to 1589 mm, an amount lower by 8% than the island long-term mean of 1720 mm for this period. During the same period, a total of 1189 mm was recorded in the North, 2145 mm in the East, 1579 mm in the South, 882 mm in the West and 1614 mm in the Centre. Compared to the respective long-term mean for these sectors, cumulative rainfall represented 103% in the North, 122% in the East, 76% in the South, 104% in the West and 70% in the Centre.

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

	North	East	South	West	Centre	Island
2010	39 (54)	73 (59)	75 (48)	14 (42)	97 (60)	63 (53)
2011	123 (171)	203 (165)	171 (109)	101 (306)	159 (98)	162 (134)
LTM	72	123	157	33	163	120

* Figures in brackets are % of LTM

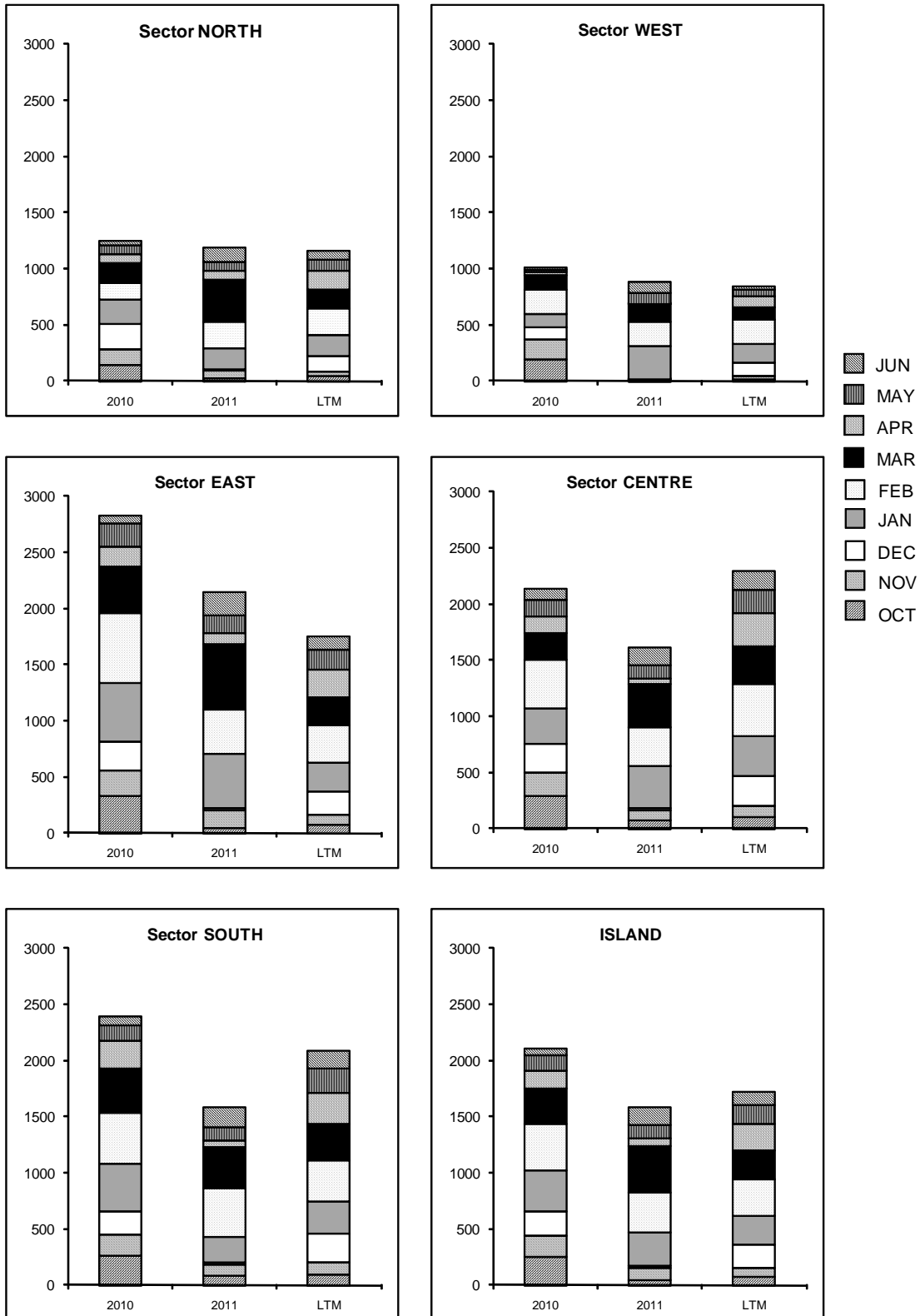
Table 1b. Cumulative rainfall (mm) from October 2010 to June 2011 for crop 2011 compared to that of crop 2010 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2010	1248 (108)	2830 (161)	2390 (115)	1008 (119)	2118 (92)	2109 (123)
2011	1189 (103)	2145 (122)	1579 (76)	882 (104)	1614 (70)	1589 (92)
LTM	1155	1756	2085	847	2291	1720

* Figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

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



1.2 Temperature (Table 2)

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

Above normal mean monthly maximum temperature was recorded at all stations, the difference ranging from 1.4 °C at Pamplémousses to 2.3 °C at Union Park. The mean monthly minimum temperature also exceeded the normal at all stations. The resulting mean amplitude was similar to the normal at Pamplémousses, higher at Réduit (+1.0°C) and Union Park (+0.4°C), and lower at Belle Rive (-0.2°C).

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

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
Pamplémousses	27.7 (26.3) *	18.2 (16.8)	9.5 (9.5)
Réduit	25.1 (23.3)	16.8 (16.0)	8.3 (7.3)
Belle Rive	24.8 (23.0)	16.7 (14.7)	8.1 (8.3)
Union Park	24.8 (22.5)	17.9 (16.0)	6.9 (6.5)

* 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 June 2011 were above normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 109 at Pamplémousses, 103 at Réduit, 115 at Belle Rive and 121 at Union Park.

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

Station	June 2011	Normal	% of Normal
Pamplémousses	250	230	109
Réduit	226	219	103
Belle Rive	225	195	115
Union Park	177	146	121

2. STALK HEIGHT

Measurements of stalk height had been carried out during the last week of June 2011 at 60 sites in the five sugar cane growing sectors of the island. These sites are representative of the various agro-climatic zones, varieties, and crop categories. Data collected were compared to those at the corresponding period in June 2010 and with the mean of the five best cane yielding crops of the last ten years in each sector (referred to as normal).

2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of June was 15 cm in the North, 12 cm in the East, 10 cm in the South, 8 cm in the West and 5 cm in the Centre. Stalk elongation during the month of June 2011 was similar to that of the corresponding month in 2010 in the Centre but slightly higher in the other sectors; namely by 5 cm in the North, 4 cm in the East, 3 cm in the South and 2 cm in the West. Compared to the normal for the same period, elongation was higher by 5 cm in the North and East sectors, by 4 cm in the South, whereas in the other two sectors it was comparable to the normal. The island average elongation of 11 cm was higher than that of June 2010 and the normal by 4 cm.

Table 4a. Stalk elongation during the month of June

Sectors	Stalk elongation (cm) during June			June 2011 as % of	
	2011	2010	Normal	2010	Normal
North	15	10	10	150	150
East	12	8	7	150	171
South	10	7	6	143	167
West	8	6	7	133	114
Centre	5	5	5	100	100
Island	11	7	7	157	157

2.2 Cumulative Elongation (Table 4b)

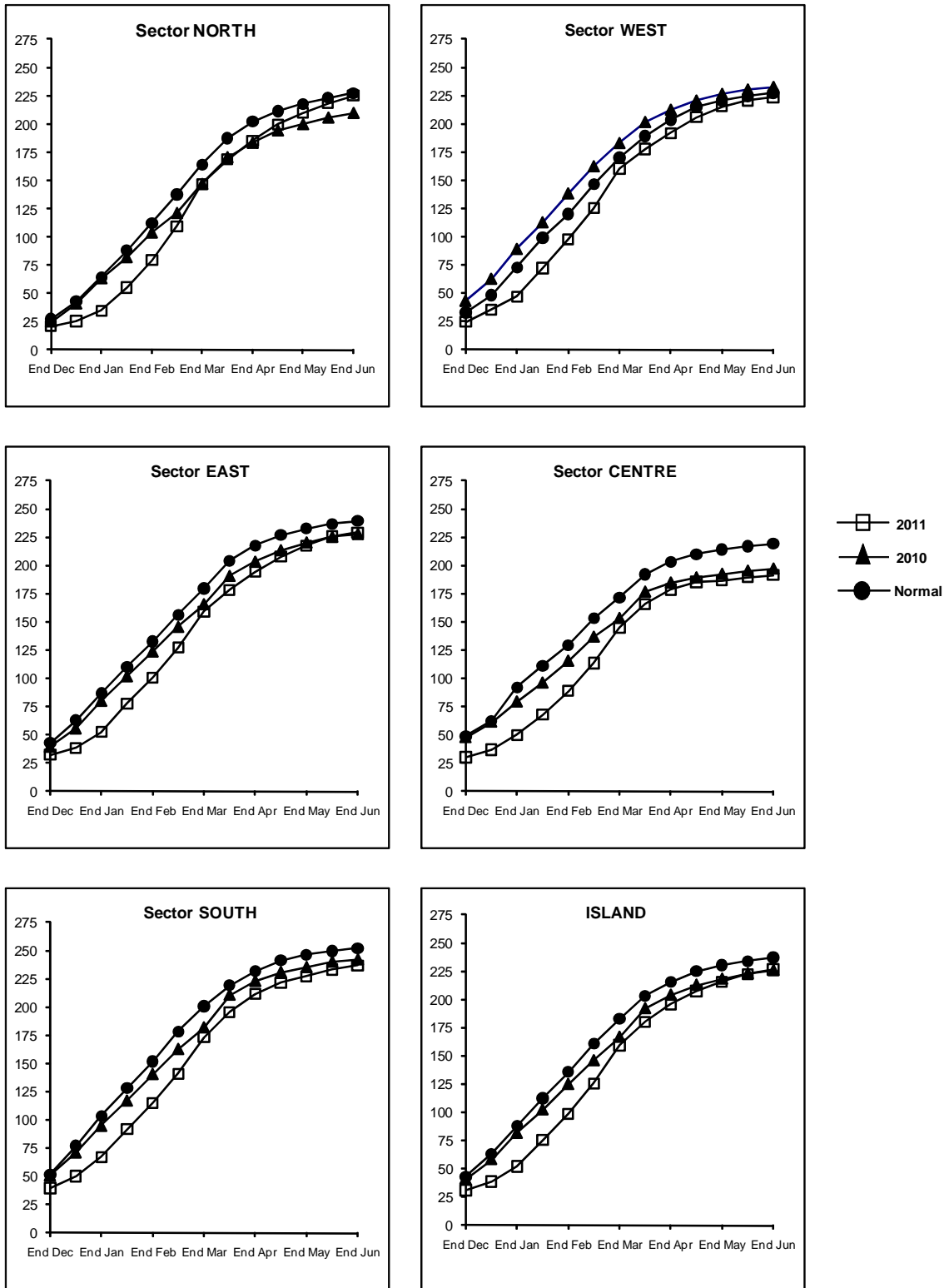
Cumulative growth from end-December 2010 to end-June 2011 was above that of the corresponding period for the 2010 crop in all sectors. Growth for that period stood at 204 cm in the North, 197 cm in both the East and South, 199 cm in the West and 161 cm in the Centre. These figures were also above the normal by 4 cm in the North and West sectors, comparable in the East but lagged behind by 3 cm in the South and 9 cm in the Centre.

Island-wise the cumulative elongation of 195 cm exceeded that of the 2010 crop (184 cm) by 6% and the normal (194 cm) by 1%.

Table 4b. Cumulative elongation at end-June

Sectors	Cumulative elongation (cm) at end- June			June 2011 as % of	
	2011	2010	Normal	2010	Normal
North	204	185	200	110	102
East	197	188	196	105	101
South	197	191	200	103	99
West	199	190	195	105	102
Centre	161	150	170	107	95
Island	195	184	194	106	101

Figure 2. Stalk height at end-June 2011



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

Total stalk height at end-June 2011 stood at 225 cm in the North, 229 cm in the East, 237 cm in the South, 224 cm in the West and 191 cm in the Centre. Compared to end-June of last year, cane height was taller by 15 cm in the North and comparable in the East but shorter in the other sectors, the difference being 5 cm in the South, 9 cm in the West and 6 cm in the Centre. Total cane height at the end of June 2011 was below the normal in all sectors. Total height lagged by 2 cm in the North, 10 cm in the East, 15 cm in the South, 4 cm in the West and 28 cm in the Centre.

Island-wise the total cane height of 227 cm at end-June 2011 was comparable to that of end-June 2010 but below the normal by 10 cm (4%).

Table 4c. Stalk height at end-June

Sectors	Stalk height (cm) at end-June			End-June 2011 as % of	
	2011	2010	Normal	2010	Normal
North	225	210	227	107	99
East	229	228	239	100	96
South	237	242	252	98	94
West	224	233	228	96	98
Centre	191	197	219	97	87
Island	227	225	237	101	96

3. 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 at end June 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 5a Average Pol % Cane (richesse) at end-June 2011.

Sectors	M 52/78	M 703/89	R 573	M 695/69	R 575	M 387/85	M 1246/84	M 2256/88	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			13.9	11.9			10.3	14.1	12.3	10.8	11.8		9.6			10.9	9.6
East		14.1	12.9	12.2		13.7	10.8	12.5	8.9	12.0	11.6		10.6		12.1		11.0
South	15.9	14.7	12.7	13.0	13.4	14.1			13.1	10.9	12.0	12.9	11.0	12.2		9.1	10.8
West			13.5		12.5				10.1	9.7	11.5		12.2				11.0
Centre	15.5	13.9	12.6	13.1		12.4				12.7	12.6		12.6		11.3		9.8

The *richesse* at end-June 2011 was 11.3% in the North, 11.5% in the East, 12.2% in the South, 11.5% in the West and 13.2% in the Centre. Compared to the corresponding period in 2010, *richesse* was inferior by 0.9° in both the North and East, 0.5° in the South and 2.0° in the West whereas in the Centre, it was higher by 0.6°. Sucrose content at the end of June for the present crop was behind that of the corresponding period in 2009 in sectors East and West, the difference being 1.1°, and 0.6° respectively. In sectors North, South and Centre, it was higher than that of 2009 by 0.4°, 0.6° and 0.7°, respectively.

Table 5b Comparison of Pol % Cane (richesse) of May and June 2009, 2010 and 2011.

Sectors	MAY			JUNE		
	2009	2010	2011	2009	2010	2011
North	8.7	10.0	7.6	10.9	12.2	11.3
East	10.3	10.6	9.2	12.6	12.4	11.5
South	9.3	10.8	9.3	11.6	12.7	12.2
West	9.6	10.9	9.2	12.1	13.5	11.5
Centre	10.6	11.1	10.2	12.5	12.6	13.2
Island	9.6	10.6	9.0	11.8	12.6	11.8

From end-May 2011 up to end-June 2011, *richesse* has improved in all sectors. The highest increase of 3.7° was observed in the North followed by 3.0° in the Centre, 2.9° in the South and 2.3° in both the East and West. For the corresponding period last year, the increments recorded were 2.2° in the North, 1.8° in the East, 1.9° in the South, 2.6° in the West and 1.5° in the Centre. On average for the island, the increase in *richesse* was 2.8° in 2011 compared to 2.0° in 2010 for the same period.

Island-wise and at the corresponding period, the *richesse* of 11.8% at the end of June 2011 was similar to that of 2009 but was lagging behind the 12.6° in 2010.

4. CROP 2011

As at 25 June 2011, 1517 ha representing about 4.3% of miller-planters' land had been harvested compared to 2134 ha (6.1%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 9.4% in the East, 3.0% in the South and 7.1% in the Centre. Harvest has not yet started in the North and West sectors. An analysis of cane productivity based on the harvest statistics for miller-planters in sectors East, South and Centre 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.

4.1 Cane productivity (Table 6a)

Cane productivity for the island as at 25 June 2011 amounted to 69.0 TCH and was lower by 10.8 TCH (13.5%) than the 79.8 TCH recorded at similar period in 2010. Sector-wise, the best cane productivity to-date was recorded in the South with 75.6 TCH, followed by the Centre (74.0 TCH) and the East (65.9 TCH). Compared to the same period in 2010, cane productivity recorded to-date was lower in all three sectors, the difference being 9.3 TCH in the East, 6.8 TCH in the South and 15.2 TCH in the Centre.

Table 6a Cane productivity (TCH) as at end June for the 2010 and 2011 crops

	East	South	Centre	Island
2010	75.2	82.4	89.2	79.8
2011	65.9	75.6	74.0	69.0

4.2 Extraction (Table 6b)

The recorded island extraction rate of 9.14% was slightly lower than at the corresponding period in 2010 (9.18%) by 0.04^o. Sector-wise, the extraction rate recorded was 8.97% in the East-Centre and 9.90% in the South. Compared to the corresponding period last year, extraction rate as at 25 June 2011 was higher by 1.13^o in the South sector but lower by 0.65^o in the East-Centre.

Table 6b Extraction rate (%) as at end June for the 2010 and 2011 crops

	East -Centre	South	Island
2010	9.62	8.77	9.18
2011	8.97	9.90	9.14

4.3 Sugar productivity (Table 6c)

Island-wise, the recorded sugar productivity of 6.31 TSH was much lower than that at the corresponding period in 2010 (7.33 TSH) by 1.02 tonne (13.9%). Sector-wise sugar productivity was 6.02 TSH in the East-Centre and 7.48 TSH in the South. In sectors East-Centre sugar productivity was 1.39 TSH less than that at the corresponding period in 2010 whereas in the South it was higher by 0.25 TSH.

Table 6c Sugar productivity (TSH) as at end June for the 2010 and 2011 crops

	East -Centre	South	Island
2010	7.41	7.23	7.33
2011	6.02	7.48	6.31

5. CROP 2011

Overall weather during June 2011, namely the combination higher than normal temperature amplitude and bright sunshine has favoured ripening. Thus recorded sucrose accumulation was better (2.8^o) than that during the same month in 2010 when it was only 2.0^o. As expected with winter conditions setting in and flowering of the crop, growth rates slowed and differed by only 4 cm when compared to that of 2010. Though crop statistics for cane productivity showed a depression of 10.8 TCH when compared to that at end of June 2010, it must be noted that harvest has just started in three sectors only and it will be only when a substantial area has been harvested in all sectors that a more precise picture of cane productivity will be obtained for the present crop.