

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2012

Status: End May 2012

1. CLIMATE

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

The island's average rainfall of 198 mm over the sugar cane areas for the month of May 2012 represented 119% of the long-term mean (166 mm) for that month. Above normal rainfall was recorded in sectors East, West and Centre with 280 mm, 79 mm and 270 mm, which represented 156%, 141% and 129% of the long-term mean respectively. In the North and South, the recorded 95 mm and 207 mm of rain during May 2012 was not much below the long-term mean.

Cumulative rainfall for the period October 2011 to May 2012 amounted to 1467 mm for the island. This was 6% lower than the island long-term mean of 1556 mm for that period. During that same period, 833 mm were recorded in the North, 1859 mm in the East, 1680 mm in the South, 630 mm in the West and 1836 mm in the Centre. These amounts represented 78%, 115%, 89%, 79%, and 88% of their respective long-term mean.

Table 1a Rainfall (mm) of May for crops 2011, 2012 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
Crop 2011	88 (82)	164 (91)	116 (55)	91 (163)	114 (54)	120 (72)
Crop 2012	95 (89)	280 (156)	207 (98)	79 (141)	270 (129)	198 (119)
LTM	107	180	212	56	210	166

* figures in brackets are % of LTM

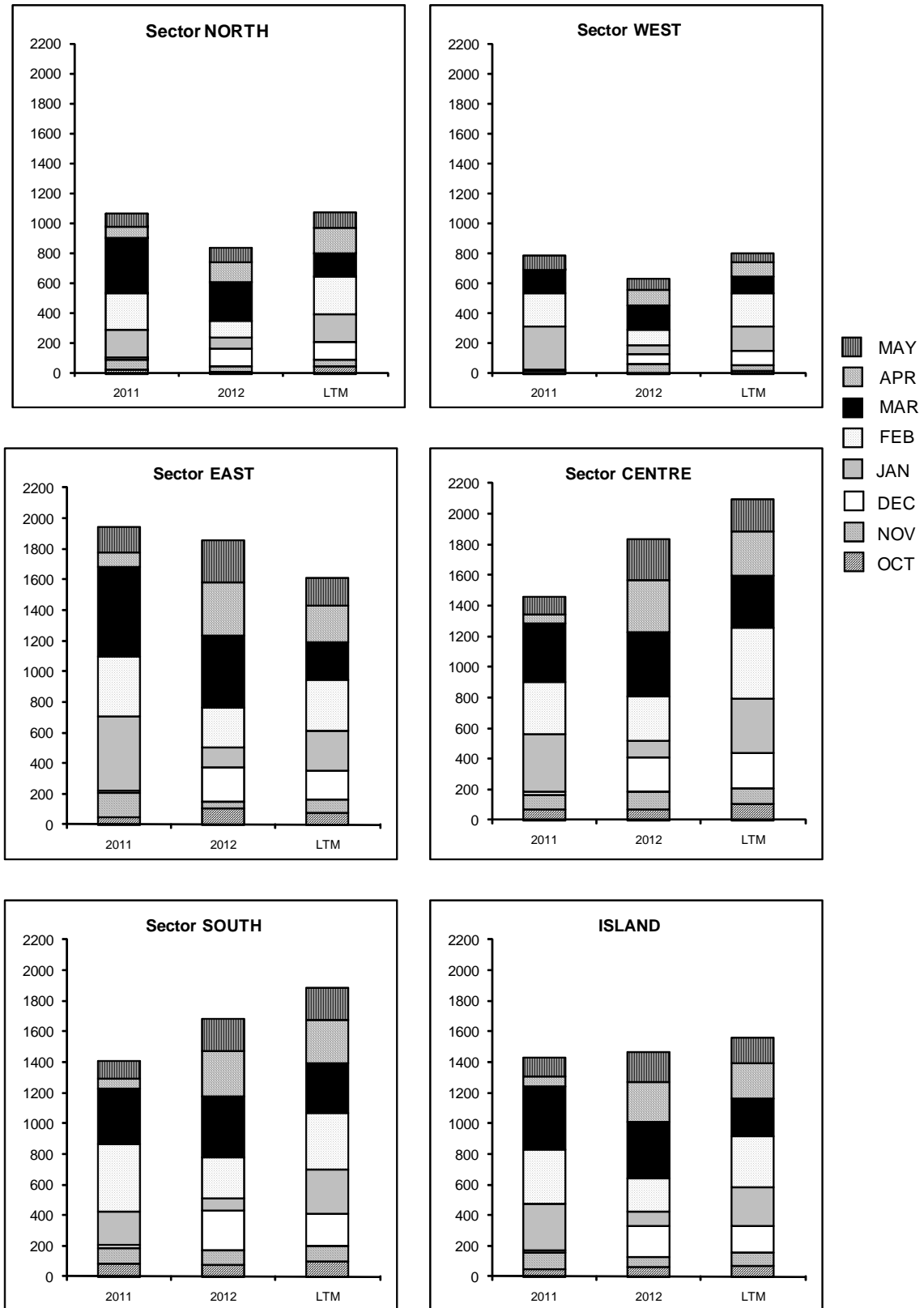
Table 1b Cumulative rainfall (mm) from October 2011 to May 2012 for crop 2012 compared to that of crop 2011 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
Crop 2011	1066 (99)	1942 (120)	1408 (75)	781 (98)	1455 (69)	1427 (92)
Crop 2012	833 (78)	1859 (115)	1680 (89)	630 (79)	1836 (88)	1467 (94)
LTM	1073	1612	1884	797	2096	1556

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1 Monthly rainfall (mm) for the period Oct 2011 to May 2012 for the 2012 crop compared to the corresponding period of the 2011 crop and to the long term mean (LTM).



1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of May 2012 on MSIRI agro-meteorological stations are given below.

The mean monthly maximum temperature was below normal at Pamplemousses by 0.8 °C and Belle Rive by 0.6 °C but exceeded the normal by 0.2 °C at Réduit and 0.6 °C at Union Park. Above normal mean monthly minimum temperature was recorded at Pamplemousses (+1.0 °C), Réduit (+0.2 °C), Union Park (+0.4 °C) and Belle Rive (+0.7 °C). The resulting mean amplitude was similar to the normal at Réduit, slightly higher at Union Park but lower at Pamplemousses and Belle Rive.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in May 2012

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
Pamplemousses	27.3 (28.1) *	19.8 (18.8)	7.5 (9.3)
Réduit	25.3 (25.1)	18.2 (18.0)	7.1 (7.1)
Belle Rive	24.2 (24.8)	17.3 (16.6)	6.9 (8.2)
Union Park	24.9 (24.3)	18.3 (17.9)	6.6 (6.4)

* 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 May 2012 were below normal at Belle Rive and Union Park but above normal at the other stations. Recorded bright sunshine as a percentage of the normal amounted to 104 at Pamplemousses, 109 at Réduit, 85 at Belle Rive and 97 at Union Park.

Table 3 Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in May 2012

Station	May 2012	Normal	% of Normal
Pamplemousses	249	238	104
Réduit	236	217	109
Belle Rive	173	204	85
Union Park	158	162	97

2. STALK HEIGHT

Cane growth was assessed during the last week of May 2012 at 60 sites in the five sugar cane sectors of the island. These sites are representative of the various agro-climatic zones, varieties and crop categories. Data collected are compared with those of the corresponding period in May 2011 and to 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 May 2012 amounted to 22.6 cm in the North, 18.1 cm in the East, 17.2 cm in the South, 18.7 cm in the West and 13.6 cm in the Centre. These growth increments exceeded those of 2011 by 1.6 cm in the South and 5.5 cm in the Centre whereas in the other sectors they lagged behind those of 2011 by 2.1 cm in the North, 5.4 cm in the East and 4.8 cm in the West. Compared to the normal for the corresponding month, growth was higher in all sectors, the advantage being 5.2 cm in the North, 5.1 cm in the East, 2.4 cm in both the South, and West, and 3.8 cm in the Centre. The island average elongation of 18.5 cm was lower than that of May 2011 (19.7 cm) by 6.3%, but exceeded the normal (15.6 cm) by 18.9%.

Table 4a. Stalk elongation during the month of May

Sectors	Stalk elongation (cm) during May			May 2012 as % of	
	2012	2011	Normal	2011	Normal
North	22.6	24.7	17.4	91.5	130.2
East	18.1	23.5	13.0	77.0	139.2
South	17.2	15.6	14.8	110.3	116.4
West	18.7	23.5	16.3	79.6	114.6
Centre	13.6	8.1	9.8	167.9	139.3
Island	18.5	19.7	15.6	93.7	118.9

2.2 Cumulative Elongation (Table 4b)

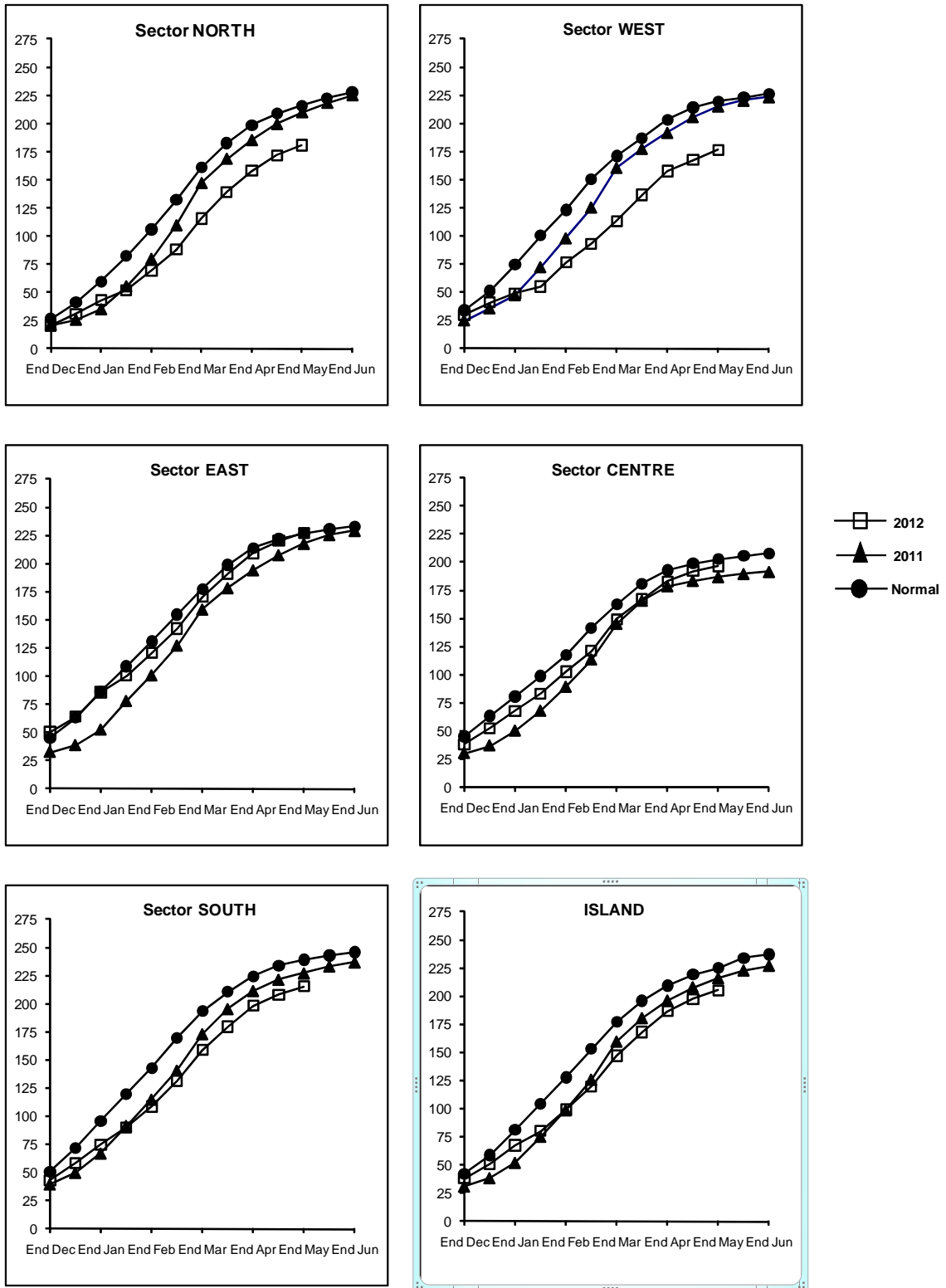
Cumulative growth from end-December 2011 to end-May 2012 reached 159.9 cm in the North, 176.5 cm in the East, 172.2 cm in the South, 146.6 cm in the West and 158.3 cm in the Centre. These data when compared to those of 2011 lagged behind by 28.9 cm (15.3%) in the North, 8.7 cm (4.7%) in the East, 15.1 cm (8.1%) in the South and 43.9 cm (23%) in the West. In the Centre cumulative growth in May 2012 was slightly higher than that obtained in May 2011.

Table 4b. Cumulative elongation at end-May.

Sectors	Cumulative elongation (cm) at end-May			May 2012 as % of	
	2012	2011	Normal	2011	Normal
North	159.9	188.8	189.0	84.7	84.6
East	176.5	185.2	181.8	95.3	97.1
South	172.2	187.3	188.2	91.9	91.5
West	146.6	190.5	185.4	77.0	79.1
Centre	158.3	156.7	157.5	101.0	100.5
Island	167.0	184.4	182.6	90.6	91.4

For the same period and apart from sector Centre, growth was below normal in all sectors. The difference amounted to 29.1 cm (15.4%) in the North, 5.3 cm (2.9%) in the East, 16.0 cm (9.5 %) in the South and 38.8 cm (20.9%) in the West. Island-wise the cumulative elongation of 167.0 cm is inferior to that of the 2011 crop (184.4 cm) and to the normal (182.6 cm) by 9.4% and 8.6% respectively.

Figure 2. Stalk height at end-May 2012.



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

At end-May 2012, total cane height was 180.6 cm in the North, 227.1 cm in the East, 215.4 cm in the South, 176.4 cm in the West and 196.6 cm in the Centre, giving an island average of 205.2 cm. Compared to the corresponding period in May 2011, cane was taller in the East and Centre by 9.4 cm and 9.8 cm respectively but shorter in the North, South and West by 29.2 cm, 11.8 cm and 38.9 cm, respectively. Compared to the normal, total cane height at the end of May 2012 was comparable in the East but lagged by 35.2 cm (16.3 %) in the North, 23.8 cm (9.9 %) in the South, 43.1 cm (19.6%) in the West and 6.0 cm (3.0%) in the Centre.

Island-wise the total cane height of 205.2 cm at end-May 2012 was inferior to that of end-May 2011 by 10.4 cm (4.8%) and the normal by 19.8 cm (8.8%).

Table 4c. Stalk height at end-May.

Sectors	Stalk height (cm) at end-May			End-May 2012 as % of	
	2012	2011	Normal	2011	Normal
North	180.6	209.8	215.8	86.1	83.7
East	227.1	217.7	226.9	104.3	100.1
South	215.4	227.2	239.2	94.8	90.1
West	176.4	215.3	219.5	81.9	80.4
Centre	196.6	186.8	202.6	105.2	97.0
Island	205.2	215.6	225.0	95.2	91.2

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. 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 5a Average Pol % Cane (richesse) at end May 2012.

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			9.3	9.6			6.3	8.4	6.4	5.7	8.7		9.1			8.4	7.2
East	11.7	13.5	12.4	11.5	12.8	11.9	7.9	12.7	10.1	9.3	8.7		8.8		8.3		9.9
South	12.6	12.7	10.9	11.0	11.0	12.0			9.5	10.0	9.6	10.8	9.2	10.8		8.1	6.9
West			9.2		9.2				7.2	6.4	8.4		9.3				7.0
Centre	13.3	12.1	9.5			9.4				8.9	8.5		8.6		9.8		7.2

As expected, the cane analysis data indicate higher sucrose contents in the early maturing varieties M 52/78, M 703/89 and R 573 than in the mid-season ones like M 1176/77 and M 1400/86, and in the late season R 570. However, potential for significant increases in sucrose

content can occur in all the varieties till the end of the crop season if favourable weather conditions are met.

The *richesse* in the end-May samples was 7.4% in the North, 10.1% in the East, 10.0% in the South, 8.3% in the West and 10.5% in the Centre. Compared to the corresponding period in 2011, sucrose content at end-May 2012 was higher by 0.9° in the East, 0.7° in the South and 0.3° in the Centre. In sectors North and West, it lagged behind that of corresponding period last year by 0.2° and 0.9°, respectively. Sucrose content at the end of May for the present crop was also lagging behind that of 2010 in all sectors.

Table 5b Comparison of Pol % Cane (*richesse*) at the end of April and May 2010, 2011 and 2012.

Sectors	APRIL			MAY		
	2010	2011	2012	2010	2011	2012
North	7.9	5.3	4.9	10.0	7.6	7.4
East	8.5	7.0	8.1	10.6	9.2	10.1
South	8.2	6.9	7.2	10.8	9.3	10.0
West	8.7	6.1	5.7	10.9	9.2	8.3
Centre	8.8	6.9	7.7	11.1	10.2	10.5
Island	8.3	6.5	6.8	10.6	9.0	9.3

From end-April 2012 up to end-May 2011, *richesse* improved in all sectors. The highest increment of 2.8° was observed in both the South and Centre followed by 2.6° in the West, 2.5° in the North and 2.0° in the East. For the corresponding period last year, the increments recorded were 2.3° in the North, 2.2° in the East, 2.4° in the South, 3.1° in the West and 3.3° in the Centre. On average for the island, the increase in *richesse* was 2.5° in 2012 which was similar to that obtained in 2011 compared to the increment of 2.3° in 2010 for the same period.

Island-wise, the *richesse* of 9.3% recorded at the end of May 2012 was slightly higher than that of 2011 (9.0%) by 0.3° at the same period but lagging severely behind that of 2010 (10.6%) by 1.3°.

4. CROP 2012

Although rainfall, temperature and solar radiation have been favourable to growth in May 2012, resulting in a higher elongation rate compared to the normal, the elongation rate had remained slightly lower than that of May 2011. Total stalk height at the end of May 2012 was therefore still lagging behind that of May 2011 and the normal by about 5% and 9%, respectively. This indicates that in terms of cane productivity, the 2012 crop will lag behind that of the 2011 crop.

Although the weather during May 2012 has been more favourable to growth, sucrose accumulation has been on the high side in comparison to that recorded last year at corresponding period. The average for the island (9.3%) is slightly higher than the 9.0% of 2011 but lower than the 10.6% of 2010. This is not cause for concern as the crop possesses a high capacity for rapid sucrose accumulation under favourable conditions.