

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2013

Status: End April 2013

1. CLIMATE

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

The island's average rainfall for the month of April 2013 was 155 mm over the sugar cane areas and represented 67% of the long-term mean (230 mm). Sector-wise, rainfall was below the long-term mean by 104 mm (63%) in the North, 31 mm (13%) in the East, 108 mm (39%) in the South, 55 mm (57%) in the West and 41 mm (14%) in the Centre.

Cumulative rainfall for the period October 2012 to April 2013 amounted to 1569 mm, which is higher by 11% than the island long-term mean of 1426 mm for this period. During that same period, a total of 962 mm were recorded in the North, 1898 mm in the East, 1845 mm in the South, 662 mm in the West and 1940 mm in the Centre. These amounts represented 99%, 131%, 108%, 87% and 101% of the respective long-term mean.

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

	North	East	South	West	Centre	Island
2012	132 (80)	347 (142)	300 (107)	103 (107)	338 (116)	262 (114)
2013	61 (37)*	214 (87)	172 (61)	42 (43)	252 (86)	155 (67)
LTM	165	245	280	97	293	230

* figures in brackets are % of LTM

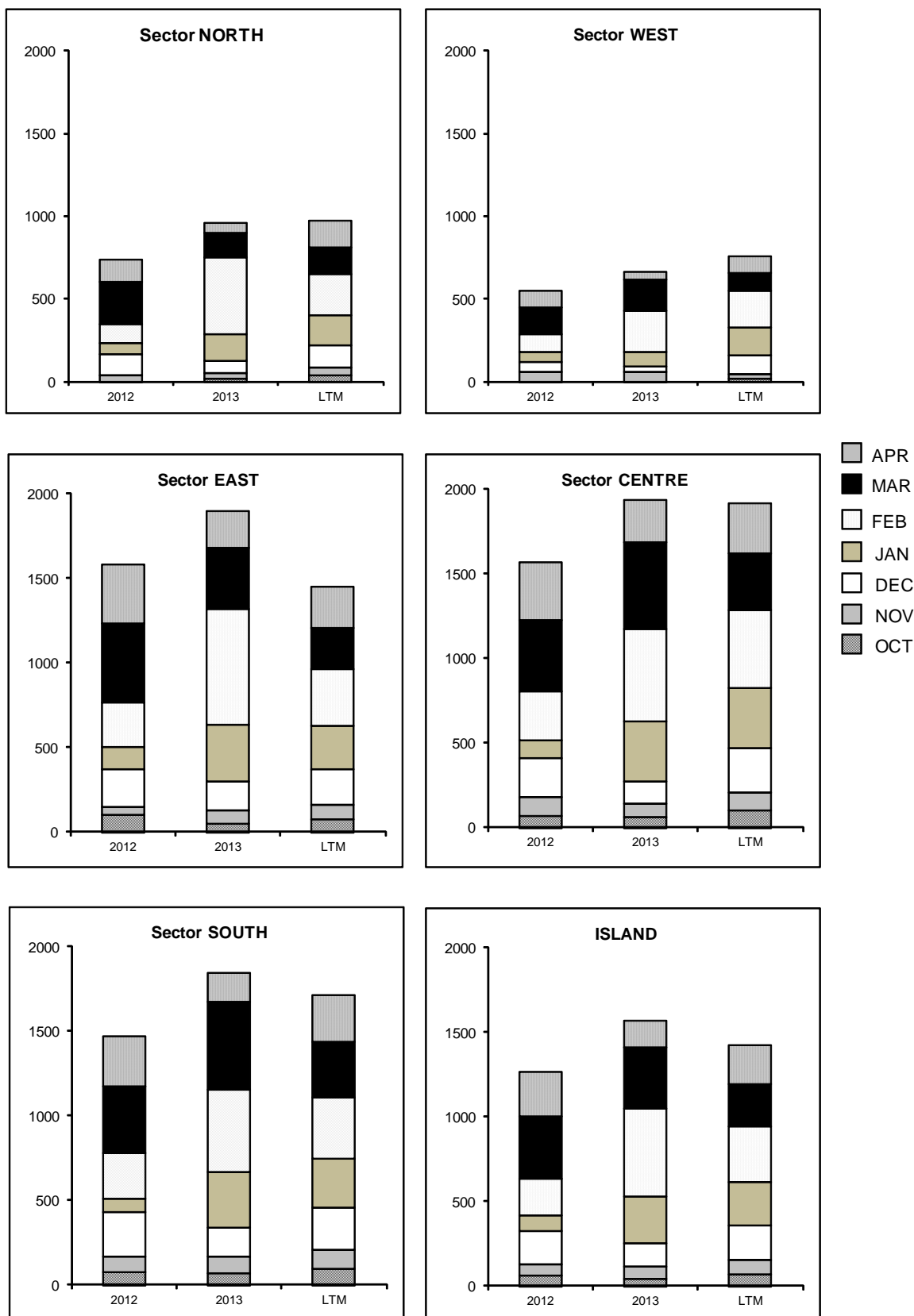
Table 1b Cumulative rainfall (mm) from October 2012 to April 2013 for crop 2013 compared to crop 2012 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2012	738 (76)	1579 (109)	1473 (86)	551 (73)	1566 (82)	1266 (89)
2013	962 (99)*	1898 (131)	1845 (108)	662 (87)	1940 (101)	1569 (111)
LTM	977	1453	1716	757	1918	1426

* figures in brackets are % of LTM
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[Source : raw provisional data from Meteorological

Figure 1 Monthly rainfall (mm) for the period October 2012 to April 2013 for the 2013 crop compared to the corresponding period of the 2012 crop and to the long term mean (LTM)



1.2 Temperature (Table 2)

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

The mean monthly maximum temperature was below normal at all stations except at Union Park where it was above normal by 0.7 °C. Above normal mean monthly minimum temperature was recorded at Pamplemousses (+0.7 °C), Union Park (+0.5 °C) and Belle Rive (+0.7 °C) whereas at Réduit it was similar to the normal. The resulting mean amplitude was below normal at all four stations, except at Union Park.

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

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
Pamplemousses	29.3 (29.7) *	21.7 (21.0)	7.6 (8.7)
Réduit	26.4 (26.8)	20.3 (20.3)	6.1 (6.5)
Belle Rive	25.4 (26.4)	19.3 (18.6)	6.1 (7.8)
Union Park	26.6 (25.9)	20.2 (19.7)	6.4 (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 April 2013 were below normal at all stations except at Pamplemousses. Recorded bright sunshine as a percentage of the normal amounted to 106 at Pamplemousses, 95 at Réduit, 85 at Belle Rive and 76 at Union Park.

Table 3 Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in April 2013

Station	Apr 2013	Normal	% of Normal
Pamplemousses	245	232	106
Réduit	201	211	95
Belle Rive	164	192	85
Union Park	116	152	76

2. STALK HEIGHT

Cane growth was assessed during the last week of April 2013 in the 60 sites representative of the five sugar cane sectors of the island. These sites cover the various agro-climatic zones, varieties under cultivation and stages of development of the crop. Data collected are compared with the mean of the five best cane yielding years of the last ten years in each sector, referred to as normal, and to the corresponding period in April 2012.

2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of April amounted to 34.9 cm in the North, 31.2 cm in the East, 36.2 cm in the South, 37.5 cm in the West and 28.1 cm in the Centre. Stalk elongation during the month of April 2013 was thus lower than for the corresponding month in 2012 by 7.5 cm in the North, 7.4 cm in the East, 3.1 cm in the South, 6.9 cm in the West and 5.7 cm in the Centre. Compared to the normal for the same period, elongation was higher in the South by 5.3 cm and the West by 5.2 cm, but lagging behind the normal in sectors North, East and Centre by 2.7 cm, 2.8 cm and 2.1 cm, respectively. The 33.9 cm average elongation for the island represented 85.2% of that recorded in April 2012 (39.8 cm) and 105.3% of the normal (32.2 cm).

Table 4a. Stalk elongation during the month of April 2013

Sectors	Stalk elongation (cm) during April			April 2013 as % of	
	2013	2012	Normal	2012	Normal
North	34.9	42.4	37.6	82.3	92.8
East	31.2	38.6	34.0	80.8	91.8
South	36.2	39.3	30.9	92.1	117.2
West	37.5	44.4	32.3	84.5	116.2
Centre	28.1	33.8	30.2	83.1	93.0
Island	33.9	39.8	32.2	85.3	105.4

2.2 Cumulative elongation (Table 4b)

Cumulative growth from end-December 2012 to end-April 2013 stood at 169.4 cm in the North, 187.2 cm in the East, 168.2 cm in the South, 168.4 cm in the West and 148.6 cm in the Centre. These data were higher than during the corresponding period in 2012 by 32.1 cm in the North, 28.8 cm in the East, 13.2 cm in the South, 40.5 cm in the West and 3.9 cm in the Centre. Compared to the normal for the same period, cumulative growth was comparable to the normal in the West and Centre. In the North and South, it lagged behind the normal by 2.2 cm and 5.2 cm, respectively, whereas in the East, cumulative growth exceeded the normal by 21.2 cm.

Table 4b. Cumulative elongation at end-April 2013

Sectors	Cumulative elongation (cm) at end- April			April 2013 as % of	
	2013	2012	Normal	2012	Normal
North	169.4	137.3	171.6	123.4	98.7
East	187.2	158.4	166.0	118.2	112.8
South	168.2	155.0	173.4	108.5	97.0
West	168.4	127.9	169.1	131.7	99.6
Centre	148.6	144.7	148.6	102.7	100.0
Island	172.0	148.7	167.2	115.7	102.9

Island-wise the cumulative elongation of 172.0 cm is higher than that of April 2012 (148.7 cm) and to the normal (167.2 cm) by 15.7% and 2.9% respectively.

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

Total stalk height at end April 2013 was at 188.1 cm in the North, 229.0 cm in the East, 205.3 cm in the South, 196.6 cm in the West and 188.9 cm in the Centre to give an island average of 205.7 cm. These figures were higher than that of the corresponding period last year in all sectors, the difference ranging from 5.9 cm in the Centre to 38.9 cm in the West. Total stalk height at end April 2013 exceeded the normal only in the East by 17.9 cm (8.5 %), whereas in the other sectors it lagged behind the normal by 10.4 cm (5.2%) in the North, 19.1 cm (8.5%) in the South, 6.6 cm (3.2%) in the West and 4.8 cm (2.5%) in the Centre.

Table 4c. Stalk height at end-April 2013

Sectors	Stalk height (cm) at end-April			End-April 2013 as % of	
	2013	2012	Normal	2012	Normal
North	188.1	158.0	198.5	119.1	94.8
East	229.0	209.0	211.1	109.6	108.5
South	205.3	198.2	224.4	103.6	91.5
West	196.6	157.7	203.2	124.7	96.8
Centre	188.9	183.0	193.7	103.2	97.5
Island	205.7	187.2	209.5	109.9	98.2

At island level, the total stalk height of 205.7 cm at the end of April 2013 was above that of the corresponding period in 2012 by 18.5 cm (9.9%) but was below the normal by 3.8 cm (1.8%).

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 during the last week of April 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.

The data clearly shows the higher sucrose content at most sites under the early varieties M 695/69, M 52/78, M 703/89 and R 573 compared to the mid- and late-season ones. However, sucrose content is still far from the achievable potential, even in the early varieties.

Table 5a. Average Pol % cane (richesse) at end April 2013.

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			8.8	8.4			4.0	7.3	6.8	6.2	7.7		6.8			6.3	4.0
East		10.1	10.1	9.1	10.9	7.9	7.8	9.5	8.0	6.7	8.1		6.9				7.5
South	10.7	9.3	9.1	8.5	7.2	8.6			7.9	6.1	7.8	8.3	6.8	5.7		5.8	6.0
West			8.4		7.5				6.9	6.3	7.0		7.6				5.3
Centre	9.1	8.7	6.4			6.8				6.2	5.1		6.9		6.9		5.0

The *richesse* derived from the end April 2013 sampling amounted to 6.6% in the North, 8.0% in the East, 7.7% in the South, 7.1% in the West and 7.4% in the Centre. Compared to the corresponding period in 2012, sucrose content at end-April 2013 was comparable in the East, lower in the Centre by 0.3°, but higher in the other sectors by 1.7° in the North, 0.5° in the South and 1.4° in the West. Sucrose content at the end of April, for the present crop, was also higher in all sectors than that of the corresponding period in 2011. The advantage was 1.3° in the North, 1.0° in the East and West, 0.8° in the South and 0.5° in the Centre.

Table 5b. Comparison of Pol % cane (*richesse*) at the end of April 2011, 2012 and 2013.

Sectors	APRIL		
	2011	2012	2013
North	5.3	4.9	6.6
East	7.0	8.1	8.0
South	6.9	7.2	7.7
West	6.1	5.7	7.1
Centre	6.9	7.7	7.4
Island	6.5	6.8	7.4

Island-wise, the *richesse* of 7.4% recorded at the end of April 2013 was higher than that of the corresponding period in 2012 by 0.6° and in 2011 by 0.9°.

4. CROP 2013

Weather during April 2013, in terms of deficient rainfall with lower maximum temperature and below normal solar radiation regime, has not been favourable to optimum growth. This is reflected in the generally lower elongation rates in all sectors compared to those recorded at the same period in 2012. However, total stalk height at end of April 2013 is better than that of April 2012 but is still slightly lower than the normal by 1.8% at island level. Below normal rainfall in April 2013 has created the mild stress needed for ripening to set in resulting in the cane analysis results of end-April with the overall *richesse* at island level being better than that of 2012 and 2011. It should be pointed out that this relatively high sucrose content will not necessarily mean a higher than normal extraction rate in 2013 as sucrose content at harvest will still be tributary to the weather conditions experienced during the ripening phase.

Figure 2. Stalk height at end-April 2013.

