MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2014

Status: End April 2014

1. CLIMATE

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

The island's average rainfall for the month of April 2014 was 269 mm over the sugar cane areas and represented 118% of a long-term mean of 229 mm. Sector-wise, rainfall recorded during April 2014 exceeded the long-term mean for that month by 49 mm (20%) in the East and 91 mm (33%) in the South. In the North and Centre sectors, it was comparable to the long-term mean whereas in the West, the recorded 90 mm of rain in April 2014 was below the long-term mean by 7 mm (7%).

Cumulative rainfall for the period of October 2013 to April 2014 amounted to 1678 mm for the island, which was 19% above the LTM (1410 mm). During that period, 968 mm were recorded in the North, 2001 mm in the East, 2036 mm in the South, 929 mm in the West and 1969 mm in the Centre. These cumulated amounts represented 99%, 138%, 119%, 123% and 103% of the LTM of the respective sector.

Table 1a Rainfall (mm) of April for crops 2013, 2014 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2013	61 *(37)*	214 *(87)*	172 *(61)*	42 *(43)*	252 *(86)*	153 *(67)*
2014	**165** *(100)**	**294** *(120)*	**371** *(133)*	**90** *(93)*	**292** *(100)*	**269** *(118)*
LTM	165	245	280	97	293	229

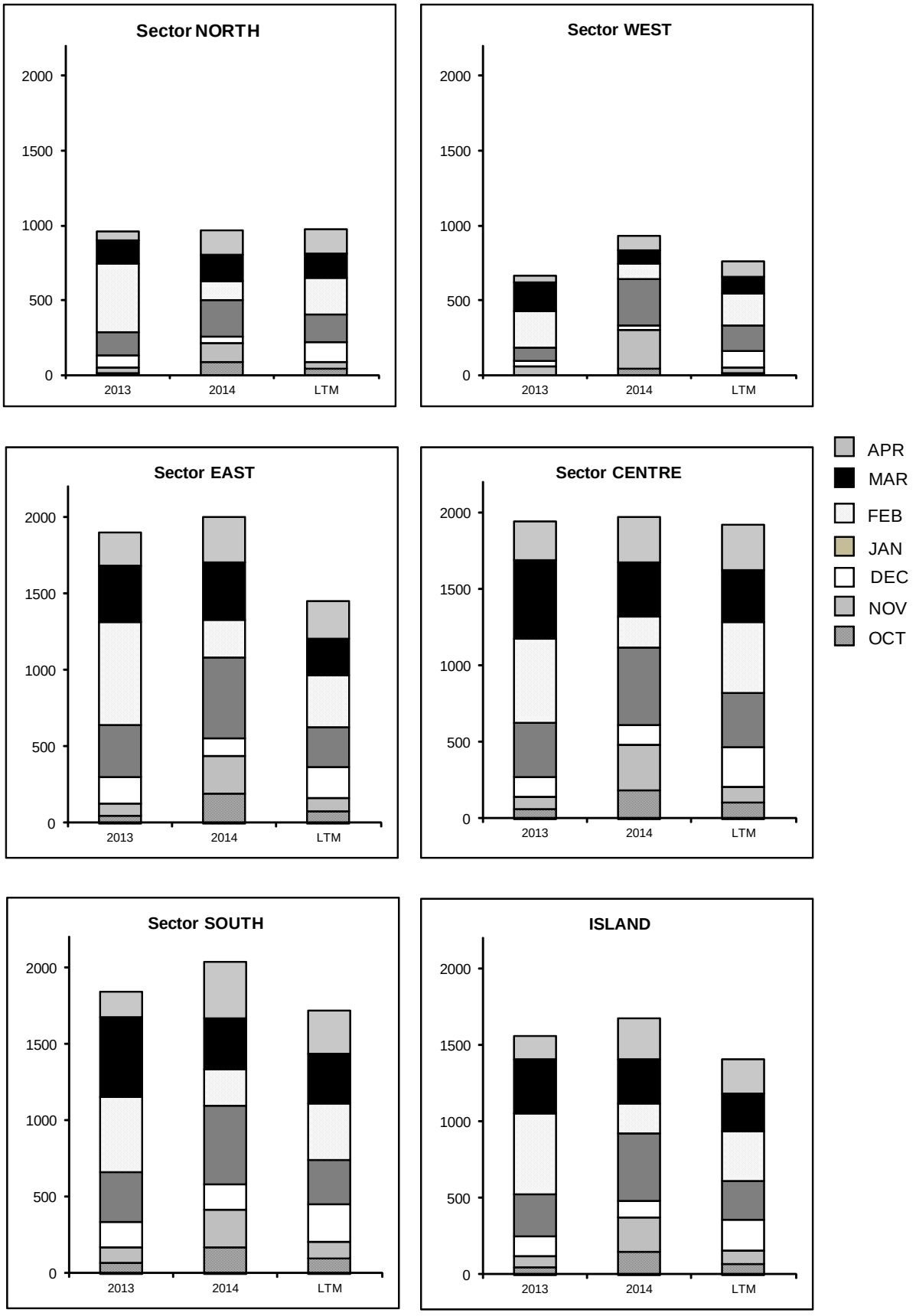
* Figures in brackets are % of LTM

Table 1b Cumulative rainfall (mm) from October 2013 to April 2014 for crop 2014 compared to that of crop 2013 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2013	962 *(98)*	1898 *(131)*	1845 *(108)*	662 *(87)*	1940 *(101)*	1562 *(111)*
2014	**968** *(99)**	**2001** *(138)*	**2036** *(119)*	**929** *(123)*	**1969** *(103)*	**1678** *(119)*
LTM	977	1453	1716	758	1918	1410

*Figures in brackets are % of LTM ***[Source : provisional data from Mauritius Meteorological Services]***

Figure 1 Monthly rainfall (mm) for the period Oct 2013 to Apr 2014 for the 2014 crop compared to the corresponding period of the 2013 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 2014 on MSIRI agro-meteorological stations are given below.

The mean monthly maximum temperature was comparable to the normal at Belle Rive but exceeded the normal by 0.8°C at Réduit, 0.4°C at Pamplemousses and 0.9°C at Union Park. Above normal mean monthly minimum temperature was recorded at Union Park (+0.3°C) and at Belle Rive (+0.4°C). At Pamplemousses, it was close to the normal whereas at Réduit, it was below normal by 0.7°C. The resulting mean amplitude exceeded the normal at Pamplemousses, Réduit and Union Park but was lower at Belle Rive.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in April 2014

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
Pamplemousses	**30.1** *(29.7) **	**20.9** *(21.0)*	**9.2** *(8.7)*
Réduit	**27.6** *(26.8)*	**19.6** *(20.3)*	**8.0** *(6.5)*
Belle Rive	**26.5** *(26.4)*	**19.0** *(18.6)*	**7.5** *(7.8)*
Union Park	**26.8** *(25.9)*	**20.0** *(19.7)*	**6.8** *(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 2014 were above normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 117 at both Pamplemousses and Réduit, 118 at Belle Rive and 125 at Union Park.

Table 3 Sunshine duration (h) recorded on MSIRI agro-meteorological stations in April 2014

Station	April 2014	Normal	% of Normal
Pamplemousses	271	232	117
Réduit	246	211	117
Belle Rive	226	192	118
Union Park	189	152	125

2. STALK HEIGHT

Assessment of stalk height was carried out during the last week of April 2014 at 63 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 were compared with those of the corresponding period in April 2013 and to the mean of the five best cane yielding crops of the last ten years in each sector (referred to as the normal).

2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of April 2014 was lower than during the corresponding period in 2013 in all sectors except in the Centre where it was slightly higher. It amounted to 31.1 cm in the North, 30.7 cm in the East, 35.6 cm in the South, 28.6 cm in the West and 28.9 cm in the Centre. Stalk elongation in April 2014 was also lagging behind the normal in all sectors except in the South. The island stalk elongation of 32.0 cm was lower than that for the corresponding period in 2013 by 1.9 cm (5.6%) but was comparable to the normal.

Table 4a. Stalk elongation during the month of April

	Stalk elongation (cm) during April			April 2014 as % of	
Sectors	**2014**	**2013**	**Normal**	**2013**	**Normal**
North	31.1	34.9	37.6	89.1	82.7
East	30.7	31.2	34.0	98.4	90.3
South	35.6	36.2	30.9	98.3	115.2
West	28.6	37.5	34.2	76.3	83.5
Centre	28.9	28.1	30.2	102.8	95.7
Island	**32.0**	**33.9**	**32.2**	**94.4**	**99.6**

2.2 Cumulative elongation (Table 4b)

Cumulative elongation from end-December 2013 to end-April 2014 reached 167.4 cm in the North, 177.0 cm in the East, 168.4 cm in the South, 168.7 cm in the West and 144.8 cm in the Centre. These data were comparable to those of 2013 in sectors South and West but were inferior in the other sectors by 2.0 cm in the North, 10.2 cm in the East and 3.8 cm in the Centre.

Table 4b. Cumulative elongation at end-April

	Cumulative elongation (cm) at end- April			April 2014 as % of	
Sectors	**2014**	**2013**	**Normal**	**2013**	**Normal**
North	167.4	169.4	171.6	98.8	97.5
East	177.0	187.2	166.0	94.6	106.6
South	168.4	168.2	173.4	100.1	97.1
West	168.7	168.4	168.0	100.2	100.4
Centre	144.8	148.6	148.6	97.4	97.4
Island	**168.6**	**172.1**	**167.2**	97.9	100.8

For the same period, growth was lagging behind the normal in the North, South and Centre by 4.2 cm, 5.0 cm and 3.8 cm, respectively. In the East, it was above normal by 11.0 cm whereas in the West, it was close to the normal.

Island-wise the cumulative elongation of 168.6 cm is lower than that of the 2013 crop (172.1 cm) by 2.1% but slightly higher than the normal (167.2 cm) by 0.8%.

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

Total stalk height at end-April 2014 stood at 191.8 cm in the North, 233.2 cm in the East, 200.9 cm in the South, 202.5 cm in the West and 196.8 cm in the Centre. Compared to the same

period in 2013, cane was taller by 3.7 cm in the North, 4.2 cm in the East, 5.9 cm in the West and 7.9 cm in the Centre but was 4.4 cm shorter in the South. Total cane height at the end of April 2014 exceeded the normal by 22.1 cm in the East and 3.1 cm in the Centre. In the West it was close to the normal but in the North and South, it lagged behind the normal by 6.7 cm and 23.5 cm, respectively.

Island-wise the total cane height of 207.7 cm at end-April 2014 was higher than at end-April 2013 by 1.8 cm (0.9%) but lower than the normal by 1.4 cm (0.7%).

Table 4c. Stalk height at end-April.

	Stalk height (cm) at end-April			April 2014 as % of	
Sectors	**2014**	**2013**	**Normal**	**2013**	**Normal**
North	191.8	188.1	198.5	102.0	96.6
East	233.2	229.0	211.1	101.8	110.5
South	200.9	205.3	224.4	97.9	89.5
West	202.5	196.6	202.0	103.0	100.2
Centre	196.8	188.9	193.7	104.2	101.6
Island	**207.7**	**205.9**	**209.1**	100.9	99.3

3. SUCROSE ACCUMULATION (Tables 5a and 5b)

Cane samples from miller-planters' land in all factory areas and representing the main cultivated varieties were analyzed for sucrose content during the last week of April 2014. The average pol % cane (*richesse*) was computed 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 indicates the higher sucrose content at most sites under the early varieties M 52/78, M 703/89, R 573 and M 695/69 compared to the mid- and late-season ones.

Table 5a. Average Pol % cane (richesse) at end April 2014.

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 1672/90**	**R 570**
North			10.0	8.1			5.8		8.0	6.3	8.3		6.7		6.0	6.7
East		10.7	9.9	10.8		9.2	7.1	9.2	8.6	7.3	8.2		7.4			7.0
South	9.3	10.9	9.6	9.0	9.5	8.4			7.1	6.8	8.8	7.8	6.2	8.5	7.5	5.9
West			9.1		8.4				5.7	6.1	7.8		7.7			4.8
Centre	9.1	9.4	8.2			8.9				8.0	8.1		8.0			7.3

Table 5b. Comparison of Pol % cane (richesse) at the end of April 2012, 2013 and 2014.

Sectors	APRIL		
	2012	2013	2014
North	4.9	6.6	7.4
East	8.1	8.0	8.3
South	7.2	7.7	7.8
West	5.7	7.1	7.5
Centre	7.7	7.4	8.6
Island	6.8	7.4	7.9

The *richesse* derived from the end-April 2014 sampling was 7.4% in the North, 8.3% in the East, 7.8% in the South, 7.5% in the West and 8.6% in the Centre. Compared to the corresponding period in 2013, sucrose content at end-April 2014 was comparable in the South but higher in the other sectors by 0.8° in the North, 0.3° in the East, 0.4° in the West and 1.2° in the Centre. Sucrose content at the end of April, for the present crop, was also higher in all sectors than that of the corresponding period in 2012. The advantage was 2.5° in the North, 0.2° in the East, 0.6°in the South, 1.8° in the West and 0.9° in the Centre.

Island-wise, the *richesse* of 7.9% recorded at the end of April 2014 was higher than that of the corresponding period in 2013 by 0.5°and in 2012 by 1.1°.

4 CROP 2014

Weather conditions during April 2014, in terms of high rainfall with higher maximum temperature and above normal solar radiation regime, have been favourable to growth. This is reflected in the elongation rate at island level, which is comparable to the normal and only slightly below that of last year. Moreover, total stalk height at end of April 2014 over the island is slightly better than that of April 2013 and close to the normal.

From this first assessment which is about seven weeks prior to the start of the harvest season, it is inferred that sucrose accumulation is quite high in all sectors compared to that of the 2013 crop. This is attributed to the generally favourable weather conditions in terms of an above normal solar radiation and temperature amplitude that have prompted an earlier onset of sucrose accumulation. Sucrose accumulation rate is expected to increase in the coming weeks as winter conditions start to set in.

Figure 2. Stalk height at end-April 2014.