

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2015

2 June 2015

SUGAR CANE CROP 2015

Status: End April 2015

1. CLIMATE

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

The island's average rainfall for the month of April 2015 was 135 mm over the sugar cane areas and represented 65% of the long-term mean (208 mm). Sector-wise, rainfall was below the long-term mean by 68 mm (50%) in the North, 55 mm (23%) in the East, 108 mm (43%) in the South, 16 mm (17%) in the West and 76 mm (27%) in the Centre.

Cumulative rainfall for the period October 2014 to April 2015 amounted to 1803 mm, which is higher by 29% than the island long-term mean of 1403 mm for this period. During the same period, a total of 1069 mm was recorded in the North, 2211 mm in the East, 2043 mm in the South, 1036 mm in the West and 2335 mm in the Centre. Compared to the respective long-term mean of these sectors, cumulative rainfall represented 112% in the North, 149% in the East, 122% in the South, 136% in the West and 123% in the Centre.

Table 1a. Rainfall (mm) for the month of April for crops 2014, 2015 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2014	165 (120)	294 (125)	371 (149)	90 (97)	292 (106)	269 (129)
2015	69 (50)*	181 (77)	141 (57)	77 (83)	200 (73)	135 (65)
LTM	137	236	249	93	276	208

* figures in brackets are % of LTM (1981-2010)

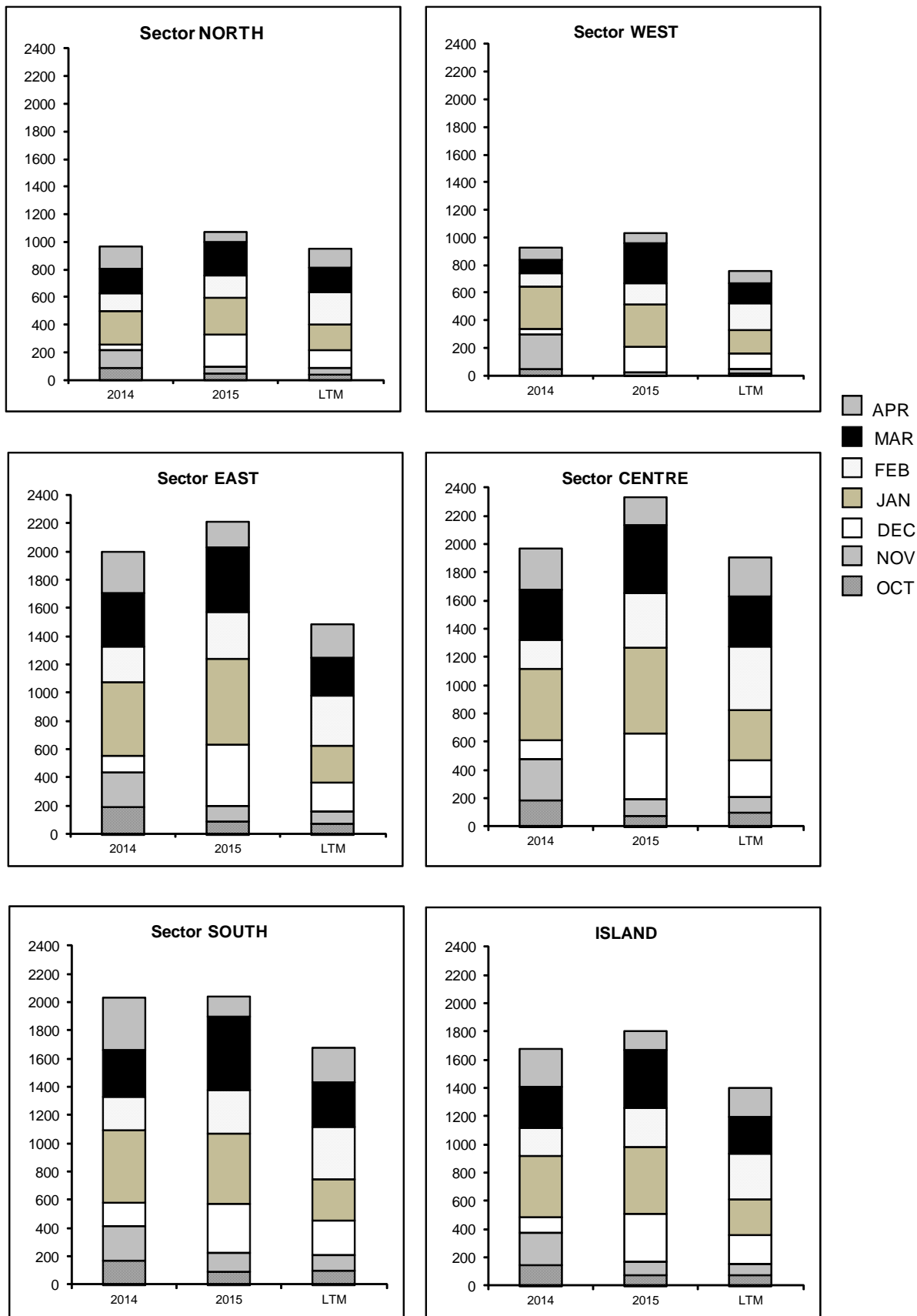
Table 1b. Cumulative rainfall (mm) from October 2014 to April 2015 for crop 2015 compared to that of crop 2014 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2014	968 (101)	2001 (134)	2036 (121)	929 (122)	1969 (103)	1679 (120)
2015	1069 (112)*	2211 (149)	2043 (122)	1036 (136)	2335 (123)	1803 (129)
LTM	954	1488	1678	760	1906	1403

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October 2014 to April 2015 for the 2015 crop compared to the corresponding period of the 2014 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 2015 on MSIRI agro-meteorological stations are given below.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in April 2015

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	April 2015	DevN*	April 2015	DevN*	April 2015	DevN*
Pamplemousses	30.8	+1.1	20.4	-0.6	10.4	+1.7
Réduit	27.6	+0.8	19.4	-0.9	8.2	+1.7
Belle Rive	26.6	+0.2	19.1	+0.5	7.5	-0.3
Union Park	26.9	+1.0	20.5	+0.8	6.4	+0.2

* Deviation from the Normal (1981-2010)

Mean maximum temperature during April 2015 was above normal ranging from 0.2° at Belle Rive to 1.1° at Pamplemousses. Mean minimum temperature, compared to the normal, was higher at Belle Rive by 0.5° and at Union Park by 0.8° whereas at the other two stations it was below normal by 0.6° at Pamplemousses and 0.9° at Réduit. The resulting mean amplitude exceeded the normal at all stations except at Belle Rive. It is of note that above normal maximum temperatures favour sucrose production through photosynthesis while higher temperature amplitudes are conducive to sucrose accumulation.

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during April 2015 were above normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 104 at both Réduit and Belle Rive, 113 at Pamplemousses and 120 at Union Park.

Table 3. Sunshine duration (h) recorded on MSIRI agro-meteorological stations in April 2015

Station	April 2015	Normal	% of Normal
Pamplemousses	262	232	113
Réduit	219	211	104
Belle Rive	199	192	104
Union Park	182	152	120

2. STALK HEIGHT

During the last week of April 2015, stalk height were measured at 53 sites in the five sugar cane sectors of the island. The selected sites cover the various agro-climatic zones, varieties and crop categories. The measurements were compared to those of the corresponding period in April 2014 and to the mean of the five best cane yielding crops of the period 2005 to 2014 in each sector (referred to as normal).

2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of April 2015 amounted to 25.1 cm in the North, 26.8 cm in the East, 26.6 cm in the South, 30.7 cm in the West and 25.2 cm in the Centre, thus lagging behind that of the same period in 2014 in all sectors except in the West. Compared to the normal for the corresponding period, growth was below normal in all sectors, the difference ranging from 1.8 cm in the West to 12.6 cm in the North. The island stalk elongation of 26.7 cm was below that for both the corresponding period in 2014 by 5.3 cm (16.6%) and the normal by 5.7 cm (17.6%).

Table 4a. Stalk elongation during the month of April 2015

Sectors	Stalk elongation (cm) during April			April 2015 as % of	
	2015	2014	Normal	2014	Normal
North	25.1	31.1	37.7	80.7	66.6
East	26.8	30.7	33.7	87.3	79.4
South	26.6	35.6	31.8	74.7	83.6
West	30.7	28.6	32.5	107.3	94.6
Centre	25.2	28.9	29.9	87.2	84.2
Island	26.7	32.0	32.4	83.2	82.3

2.2 Cumulative elongation (Table 4b)

Cumulative growth from end-December 2014 to end-April 2015 was 158.6 cm in the North, 144.9 cm in the East, 148.1 cm in the South, 159.4 cm in the West and 126.6 cm in the Centre. These data were inferior to those of 2014 and the normal in all sectors. Island-wise the cumulative elongation of 149.0 cm was lower than that of the 2014 crop (168.6 cm) by 11.6% and to that of the normal (165.1 cm) by 9.7%.

Table 4b. Cumulative elongation at end-April 2015

Sectors	Cumulative elongation (cm) at end- April			End-April 2015 as % of	
	2015	2014	Normal	2014	Normal
North	158.6	167.4	167.6	94.7	94.6
East	144.9	177.0	164.0	81.9	88.3
South	148.1	168.4	170.3	87.9	87.0
West	159.4	168.7	168.0	94.5	94.9
Centre	126.6	144.8	143.6	87.4	88.2
Island	149.0	168.6	165.1	88.4	90.3

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

Total stalk height at end April 2015 stood at 182.6 cm in the North, 189.2 cm in the East, 198.2 cm in the South, 199.2 cm in the West and 175.6 cm in the Centre giving an island average of 190.9 cm. Compared to the same period in 2014, cane was shorter by 9.2 cm in the North, 44.0 cm in the East, 2.7 cm in the South, 3.3 cm in the West and 21.2 cm in the Centre. Total cane height at the end of April 2015 was below normal by 10.9 cm in the North, 22.6 cm in the East, 19.2 cm in the South, 4.0 cm in the West and 10.9 cm in the Centre.

Island-wise the total cane height of 190.9 cm at end-April 2015 lagged behind that of end-April 2014 by 16.8 cm (8.1%) and to that of the normal by 15.7 cm (7.6%).

Table 4c. Stalk height at end-April

Sectors	Stalk height (cm) at end-April			End-April 2015 as % of	
	2015	2014	Normal	2014	Normal
North	182.6	191.8	193.5	95.2	94.4
East	189.2	233.2	211.8	81.1	89.3
South	198.2	200.9	217.4	98.7	91.2
West	199.2	202.5	203.2	98.4	98.0
Centre	175.6	196.8	186.5	89.2	94.2
Island	190.9	207.7	206.6	91.9	92.4

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

During the last week of April 2015, cane samples from miller-planters' land in all factory areas and representing the main cultivated varieties were analyzed for sucrose content. The average Pol % cane (*richesse*) was computed on the basis of area under cultivation for each variety in the different factory areas of each sector. The results were compared with those of the last two years.

Table 5a. Average Pol % cane (richesse) at end-April 2015.

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 1672/90	R 570
North			11.8	9.5			9.9	5.2	6.7	7.0	8.2		8.5	7.7	7.1
East			11.3		11.2	10.1	5.7		9.4	6.0	9.2		8.0		6.3
South	12.3	9.7	10.2	8.9	9.9	8.5			8.3	6.9	9.1	8.6	7.1	5.6	6.6
West			10.7		9.4				6.8	6.8	8.4		9.5		4.5
Centre	10.0	10.1				9.2				6.3	7.3		7.5		

Figure 2. Stalk height at end-April 2015.

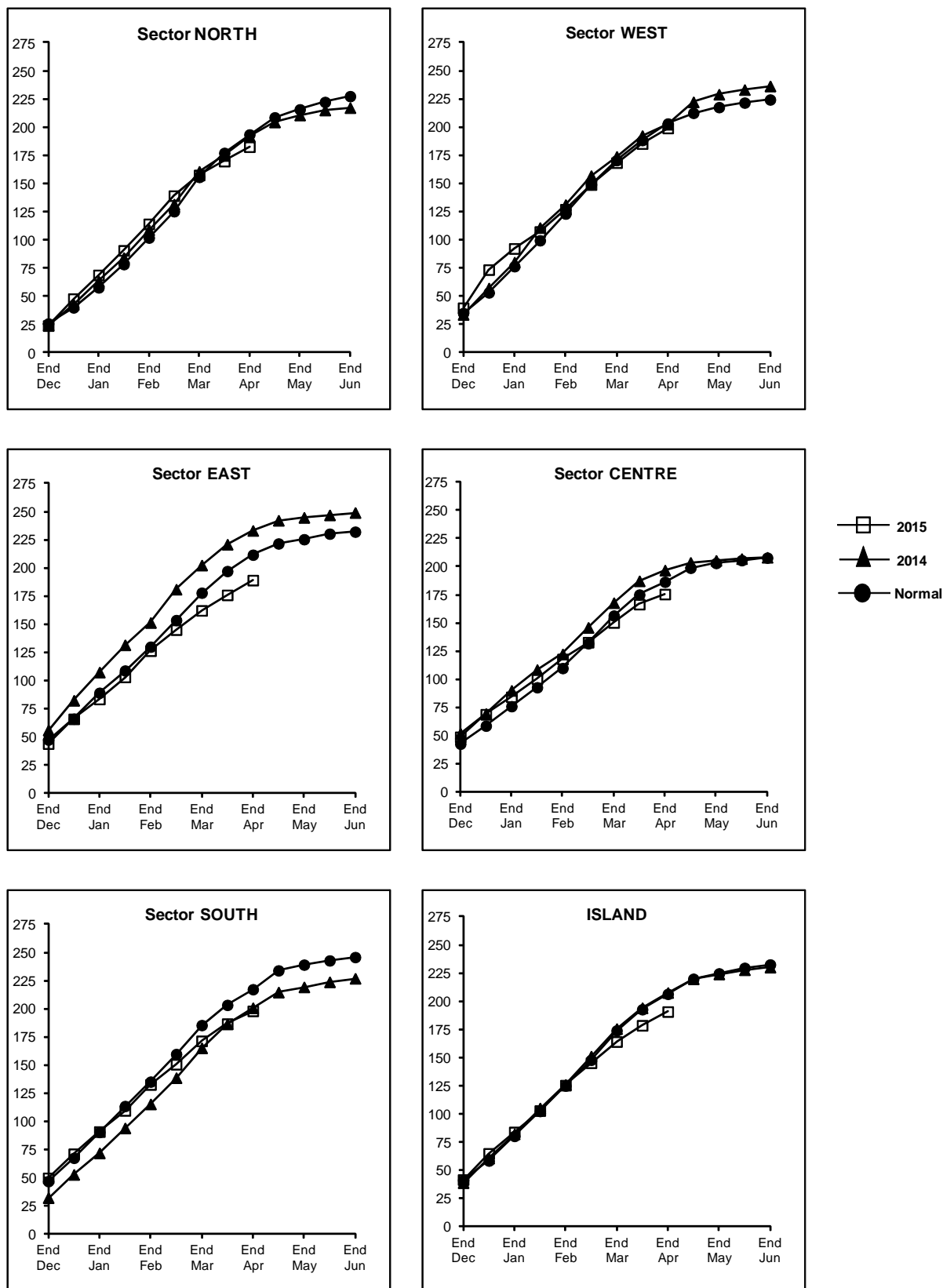


Table 5b. Comparison of Pol % cane (richesse) at the end of April 2013, 2014 and 2015.

Sectors	APRIL		
	2013	2014	2015
North	6.6	7.4	7.6
East	8.0	8.3	8.2
South	7.7	7.8	8.3
West	7.1	7.5	8.1
Centre	7.4	8.6	8.6
Island	7.4	7.9	8.1

The *richesse* derived at the end-April sampling was 7.6% in the North, 8.2% in the East, 8.3% in the South, 8.1% in the West and 8.6% in the Centre. Compared to the corresponding period in 2014, sucrose content at end-April 2015 was comparable in sectors East and Centre but higher by 0.2° in the North, 0.5° in the South and 0.6° in the West. Sucrose content at the end of April, for the present crop, was also higher than that of the corresponding period in 2013 in all sectors.

Island-wise, the *richesse* of 8.1% recorded at the end of April 2015 was higher than that of the corresponding period in 2014 by 0.2° and in 2013 by 0.7°.

3. CROP 2015

Weather during April 2015, was characterized by a combination of deficient rainfall with higher maximum temperature and temperature amplitude coupled with favourable solar radiation regime. This combination promoted sucrose accumulation to the detriment of growth resulting in the generally lower elongation rates recorded and the relatively elevated sucrose contents of the cane analysed at end-April. Based on the stalk height data recorded to date, island cane productivity is expected to be below that of 2014. The 2015 crop will be dependent on extraction rates, which will be determined by weather conditions experienced during the ripening phase.