MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2015 16 May 2016

SUGAR CANE CROP 2016

Status: End April 2016

1. CLIMATE

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

The island's average rainfall for the month of April 2016 was 260 mm across the sugar cane areas and represented 125% of the long-term mean (LTM 208 mm). Sector-wise, rainfall was above the respective LTM for the month with 318 mm in the East, 346 mm in the South and 350 mm in the Centre. In the other two sectors, rainfall of April 2016 was lagging behind the LTM by 23 mm in the North and 12 mm in the West.

Cumulative rainfall over the island for the period October 2015 to April 2016 amounted to 1455 mm, i.e. 105% of the long-term mean (1386 mm) for the island. During the same period 924 mm were recorded in the North, 1680 mm in the East, 1704 mm in the South, 730 mm in the West and 1944 mm in the Centre and represented 98%, 114%, 104%, 97% and 102% of the respective long-term mean.

Table 1a. Rainfall (mm) for the month of April for crops 2015, 2016 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2015	69 *(50)*	181 *(77)*	141 *(57)*	77 *(83)*	200 *(73)*	135 *(65)*
2016	**114** *(83)**	**318** *(135)*	**346** *(139)*	**81** *(87)*	**350** *(127)*	**260** *(125)*
LTM	137	236	249	93	276	208

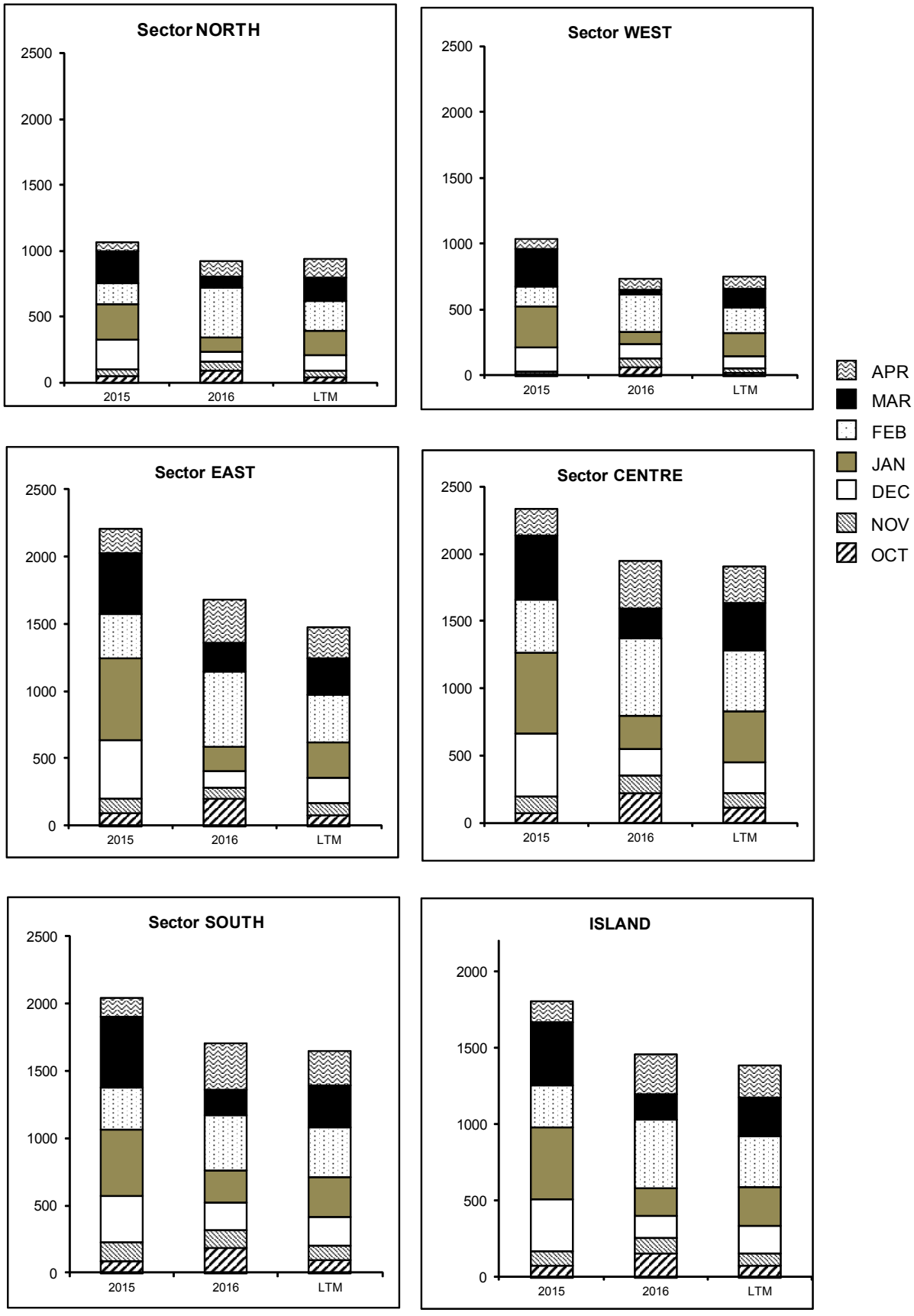
* figures in brackets are % of LTM (1981-2010)

Table 1b. Cumulative rainfall (mm) from October 2015 to April 2016 for crop 2016 compared to that of crop 2015 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2015	1069 *(114)*	2211 *(149)*	2043 *(124)*	1036 *(137)*	2335 *(122)*	1803 *(130)*
2016	**924** *(98)**	**1680** *(114)*	**1704** *(104)*	**730** *(97)*	**1944** *(102)*	**1455** *(105)*
LTM	939	1479	1645	756	1907	1386

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

Figure 1.Monthly rainfall (mm) for the period October 2015 to April 2016 for the 2016 crop compared to the corresponding period of the 2015 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 2016 on MSIRI agro-meteorological stations are given below.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in April 2016

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	April 2016	DevN*	April 2016	DevN*	April 2016	DevN*
Pamplemousses	30.6	+0.9	22.0	+1.0	8.6	-0.1
Réduit	28.0	+1.2	21.2	+0.9	6.8	+0.3
Belle Rive	27.0	+0.6	19.8	+1.2	7.2	-0.6
Union Park	27.0	+1.1	20.9	+1.2	6.1	-0.1

* Deviation from the Normal (1981-2010)

Mean maximum temperature during April 2016 was above normal, the difference ranging from 0.6° at Belle Rive to 1.2° at Réduit. Likewise, mean minimum temperature, compared to the normal, was higher by more than 0.9°at all stations. The resulting mean amplitude was close to the normal at Pamplemousses and Union Park, exceeded the normal by 0.3^{o} at Réduit but lagged behind the normal by 0.6^{o} at Belle Rive. 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 2016 were above normal at all stations except at Belle Rive where it was comparable to the normal. Recorded bright sunshine as a percentage of the normal amounted to 115 at Pamplemousses, 104 at Réduit, 99 at Belle Rive and 113 at Union Park.

Table 3. Sunshine duration (h) recorded on MSIRI agro-meteorological stations in April 2016

Station	April 2016	Normal	% of Normal
Pamplemousses	266	232	115
Réduit	220	211	104
Belle Rive	191	192	99
Union Park	171	152	113

2. STALK HEIGHT

Stalk height was assessed during the last week of April 2016 at 52 sites in the five sugar cane sectors of the island. These sites cover the various agro-climatic zones, different varieties under cultivation and crop category such as plant cane and ratoons. Data collected are compared with those of the corresponding period in April 2015 and to the mean of the five best cane yielding crops for the period 2006 to 2015 in each sector (referred to as normal).

2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of April 2016 was 24.3 cm in the North, 23.5 cm in the East, 30.9 cm in the South, 24.9 cm in the West and 23.8 cm in the Centre. Apart from the South, stalk elongation during the month of April 2016 was thus lower than for the corresponding month in 2015, the difference ranging from 0.8 cm in the North to 5.8 cm in the West. Compared to the normal for the same period, elongation was lagging behind in all sectors by 12.2 cm in the North, 9.9 cm in the East, 4.3 cm in the South, 8.3 cm in the West and 6.1 cm in the Centre. The 26.3 cm average elongation for the island was comparable to that recorded in April 2015 (26.7 cm) but was below the normal (33.1 cm) by 6.8 cm.

Table 4a. Stalk elongation during the month of April

	Stalk elongation (cm) during April			April 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	24.3	25.1	36.5	96.8	66.6
East	23.5	26.8	33.4	87.7	70.3
South	30.9	26.6	35.2	116.2	87.7
West	24.9	30.7	33.2	81.1	74.9
Centre	23.8	25.2	29.9	94.4	79.5
Island	**26.3**	**26.7**	**33.1**	**98.5**	**79.3**

2.2 Cumulative elongation (Table 4b)

Stalk growth for the period end-December 2015 to end-April 2016 cumulated to 172.8 cm in the North, 168.3 cm in the East, 163.2 cm in the South, 165.5 cm in the West and 144.6 cm in the Centre. These cumulative growths exceeded those of 2015 by 14.2 cm in the North, 23.4 cm in the East, 15.1 cm in the South, 6.1 cm in the West and 18.0 cm in the Centre. For the same period, growth was higher than the normal in all sectors except in sectors South and West. Island-wise the cumulative elongation of 165.8 cm was higher than those of the 2015 crop (149.0 cm) and the normal (162.7 cm) by 11.2% and 1.9%, respectively.

Table 4b. Cumulative elongation at end-April.

	Cumulative elongation (cm) at end- April			End-April 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	172.8	158.6	165.8	108.9	104.2
East	168.3	144.9	161.1	116.1	104.5
South	163.2	148.1	170.3	110.2	95.8
West	165.5	159.4	166.6	103.8	99.4
Centre	144.6	126.6	143.6	114.2	100.7
Island	**165.8**	**149.0**	**162.7**	**111.2**	**101.9**

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

Total stalk height at end April 2016 reached 196.9 cm in the North, 213.4 cm in the East, 204.6 cm in the South, 203.6 cm in the West and 190.4 cm in the Centre giving an island average of 204.6 cm. These figures exceeded those of the corresponding period in 2015 in all sectors, the advantage ranging from 4.4 cm in the West to 24.2 cm in the East. Total stalk height at end-April 2016 was higher than those of the normal in the North by 5.3 cm, the East by 4.9 cm and the Centre by 3.9 cm, whereas in the South and West it lagged behind by 10.9 cm and 1.3 cm, respectively.

At island level, the total stalk height of 204.6 cm was higher than that of the corresponding period in 2015 by 13.7 cm (7.2%) and was comparable to the normal.

Table 4c. Stalk height at end-April.

	Stalk height (cm) at end-April			End-April 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	196.9	182.6	191.6	107.8	102.8
East	213.4	189.2	208.5	112.8	102.4
South	204.6	198.2	215.5	103.2	94.9
West	203.6	199.2	204.9	102.2	99.4
Centre	190.4	175.6	186.5	108.4	102.1
Island	**204.6**	**190.9**	**203.7**	**107.2**	**100.5**

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

During the last week of April 2016, cane samples were analysed for sucrose content from miller-planters' land in all factory areas and representing the main cultivated varieties. The average Pol % cane (*richesse*) was computed based on area under cultivation for each variety covering 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 2016.

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 2283/98	M 1400/86	M 1176/77	M 1861/89	R 579	M 1672/90	R 570
North			11.1	9.4			9.1	11.1	8.2		7.7	10.0		9.0	5.6	6.3
East			10.6			10.3			8.4		8.5	10.2		8.2		6.7
South	10.7	10.2	9.9	9.0	9.9	8.7			8.2	8.1	9.3	10.4	9.8	8.8	7.9	6.5
West			10.2		7.7				5.6		5.4	7.5		7.3		
Centre	9.9	10.0				7.7					7.0	9.1		8.1		

Table 5b. Comparison of Pol % cane (richesse) at the end of April 2014, 2015 and 2016.

Sectors	APRIL		
	2014	2015	2016
North	7.4	7.6	8.5
East	8.3	8.2	8.8
South	7.8	8.3	8.9
West	7.5	8.1	6.9
Centre	8.6	8.6	8.8
Island	7.9	8.1	8.6

The *richesse* derived from the end-April 2016 sampling was 8.5% in the North, 8.8% in the East, 8.9% in the South, 6.9% in the West and 8.8% in the Centre. Compared to the corresponding period in 2015, sucrose content at end-April 2016 was higher in sectors North by 0.9°, both East and South by 0.6^{o} and Centre by 0.2^{o}. In the West, sucrose content was lower than that of last year by 1.2^{o}. Sucrose content at the end of April, for the present crop, was also higher than that of the corresponding period in 2014 in all sectors except in the West.

3.0 CROP 2016

Although total rainfall over the island, in April 2016, was above normal, its distribution within the month in the different sectors was not even and short periods of water stress prevailed especially in sectors North, West and the low-lying areas of the East and South. This has resulted in the generally lower elongation rates recorded in all sectors compared to the normal and those recorded at the same period in 2015. However, cumulative elongation and total stalk height at end of April 2016 are still better than those of April 2015 and comparable to the normal. The short period of water stress coupled with above normal solar radiation has favoured ripening to set in resulting in the overall *richesse* at island level being better than that of 2015 and 2014. The low sucrose content recorded in the West sector is attributed to the immature cane resulting from a late start of harvest in 2015 and also to the extended harvest season. It is to be noted that the extraction rate for 2016 would still depend on weather conditions that would prevail during the ripening period.

Figure 2. Stalk height at end-April 2016