MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2016

Status: End May 2016

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of May 2016 was below normal with an island average of 131 mm, representing 87% of the long-term mean (LTM) of 150 mm. Sector-wise, rainfall was lagging behind the respective LTM of the month with 39 mm in the North, 157 mm in the East, 185 mm in the South and 10 mm in the West. In the Centre, rainfall during the month of May 2016 was above the LTM by 25mm.

Rainfall for the period October 2015 to May 2016 cumulated to 1586 mm, which is higher than that of the island LTM of 1537 mm (3%) for this period. During the same period 963 mm were recorded in the North, 1837 mm in the East, 1889 mm in the South, 740 mm in the West and 2170 mm in the Centre and represented 93%, 111%, 103%, 92% and 103% of the respective long-term mean.

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

	North	East	South	West	Centre	Island
2015	132 *(146)*	232 *(136)*	211 *(111)*	34 *(69)*	200 *(99)*	183 *(122)*
2016	**39** *(42)**	**157** *(92)*	**185** *(97)*	**10** *(20)*	**226** *(112)*	**131** *(87)*
LTM	92	171	190	49	201	150

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

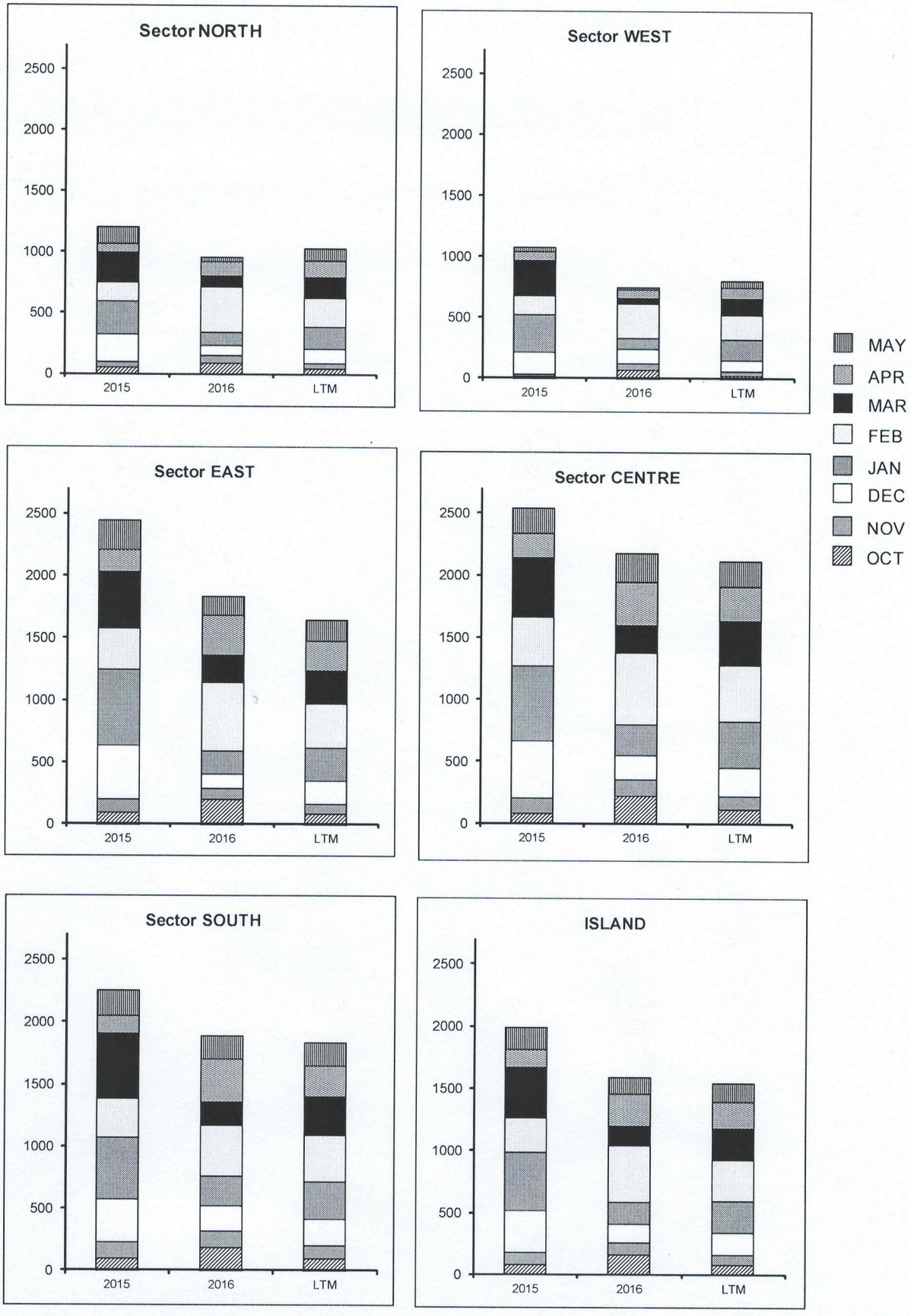
Table 1b. Cumulative rainfall (mm) from October 2015 to May 2016 for crop 2016 compared to that of crop 2015 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2015	1203 *(117)*	2443 *(148)*	2254 *(123)*	1070 *(133)*	2535 *(120)*	1986 *(129)*
2016	**963** *(93)**	**1837** *(111)*	**1889** *(103)*	**740** *(92)*	**2170** *(103)*	**1586** *(103)*
LTM	1031	1650	1835	805	2108	1537

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

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

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

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	May 2016	DevN*	May 2016	DevN*	May 2016	DevN*
Pamplemousses	28.0	-0.1	18.7	-0.1	9.3	0.0
Réduit	24.6	-0.5	17.5	-0.5	7.1	0.0
Belle Rive	24.0	-0.8	17.2	+0.6	6.8	+0.1
Union Park	24.7	+0.4	18.2	+0.3	6.5	-1.4

* Deviation from the Normal (1981-2010)

Mean maximum temperature during May 2016 was above normal at Union Park, comparable to normal at Pamplemousses and below normal at Réduit and Belle Rive. Mean minimum temperature was close to normal at Pamplemousses, below normal at Réduit and above normal at Belle Rive and Union Park. The resulting mean amplitude was close to the normal at all stations except at Union Park where it was lagging behind.

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during May 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 112 at Pamplemousses, 105 at Réduit, 100 at Belle Rive and 107 at Union Park.

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

Station	May 2016	Normal	% of Normal
Pamplemousses	267	238	112
Réduit	227	217	105
Belle Rive	205	204	100
Union Park	173	162	107

2. STALK HEIGHT

Assessment of stalk height was carried out during the last week of May 2016 at 52 sites in the five sugar cane sectors of the island. These sites cover the various agro-climatic zones, varieties under cultivation and stage of development of the crop. Data collected were compared with those of the corresponding period in May 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 May amounted to 20.8 cm in the North, 9.1 cm in the East, 14.0 cm in the South, 22.9 cm in the West and 4.3 cm in the Centre. These figures were lagging behind those of the corresponding period last year in all sectors, the difference ranging from 0.8 cm in the West to 11.3 cm in the East. Compared to the normal for the same period, elongation was lagging behind in the East by 7.5 cm, in the South by 0.8 cm and in the Centre by 4.6 cm. In the North and West stalk elongation to-date was higher than the normal by 2.0 cm and 4.1 cm, respectively. The average elongation for the island (14.2 cm) was lagging behind that recorded in May 2015 (20.0 cm) by 5.8 cmand the normal (17.0 cm) by 2.8 cm.

Table 4a. Stalk elongation during the month of May

	Stalk elongation (cm) during May			May 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	20.8	24.1	18.8	86.3	110.5
East	9.1	20.4	16.6	44.6	54.9
South	14.0	18.5	14.8	75.7	94.9
West	22.9	23.7	18.8	96.6	121.8
Centre	4.3	6.9	8.9	62.3	48.1
Island	14.2	20.0	17.0	71.1	83.7

2.2 Cumulative elongation (Table 4b)

The cumulative stalk growth for the period end-December 2015 to end-May 2016 reached193.6 cm in the North, 177.4 cm in the East, 177.2 cm in the South, 188.4 cm in the West and 148.9 cm in the Centre. These cumulative growths exceeded those of 2015 by 10.9 cm in the North, 12.1 cm in the East, 10.6 cm in the South, 5.3 cm in the West and 15.4 cm in the Centre. For the same period, growth was higher than that of the normal in the North and West, comparable to that of the normal in the East but lagged behind that of the normal in the South and Centre. Island-wise the cumulative elongation of as at end-May 2016(180.0 cm) was higher than that of the 2015 crop (169.0 cm) by 6.5% but was comparable to that of the normal.

Table 4b. Cumulative elongation at end-May.

	Cumulative elongation (cm) at end- May			End-May 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	193.6	182.7	184.7	106.0	104.8
East	177.4	165.3	177.6	107.3	99.9
South	177.2	166.6	185.1	106.4	95.7
West	188.4	183.1	185.4	102.9	101.6
Centre	148.9	133.5	152.5	111.5	97.6
Island	**180.0**	**169.0**	**179.6**	**106.5**	**100.2**

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

Total stalk height at end May 2016 stood at 217.7 cm in the North, 222.5 cm in the East, 218.6 cm in the South, 226.5 cm in the West and 194.7 cm in the Centre giving an island average of 218.9 cm. These figures exceeded those of the corresponding period in 2015 in all sectors, the advantage ranging from 1.9 cm in the South to 12.9 cm in the East. As compared to the normal, total stalk height at end-May 2016 was higher in the North by 7.3 cm and the West by 2.8 cm. It was comparable in the Centre but lagged behind in the East by 2.5 cm and the South by 11.7 cm.

At island level, the total stalk height of 218.9 cm was higher than that of the corresponding period in 2015 by 8.0 cm (3.8%) but was comparable to that of the normal.

Table 4c. Stalk height at end-May.

	Stalk height (cm) at end-May			End-May 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	217.7	206.7	210.4	105.3	103.4
East	222.5	209.6	225.0	106.2	98.9
South	218.6	216.7	230.3	100.9	94.9
West	226.5	222.9	223.7	101.6	101.2
Centre	194.7	182.5	195.4	106.7	99.6
Island	**218.9**	**210.9**	**220.6**	**103.8**	**99.2**

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

During the last week of May 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 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-May 2016.

Sectors	M 52/78	M 703/89	R 573	M 695/69	M 2256/88	R 575	M 387/85	M 1246/84	M 1861/89	M 2593/92	M 2283/98	M 1400/86	M 1176/77	R 579	M 1672/90	R 570
North			13.0	12.4	14.5			11.6		10.6		10.3	10.6	9.9	8.0	7.9
East		11.2	11.6				11.6			10.9		10.4	11.4	9.5		8.3
South	12.8	12.2	11.8	11.5		12.1	11.3		12.2	9.7	9.1	10.0	10.0	9.9	9.1	8.6
West			12.6			10.4				8.6		8.2	10.4	9.5		
Centre	12.9	11.7					9.9					9.5	11.3	9.6		

The cane analysis data indicate higher sucrose contents in the early maturing varieties M 52/78, M 703/89, R 573 and M 2256/88 than in the middle-season ones such as M 1400/86, and in the late-season such as R 570. However, sucrose content is still below the maximum threshold in all varieties, indicating the potential for significant increases till the end of the crop season if favourable weather conditions are met.

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

Sectors	APRIL			MAY		
	2014	2015	2016	2014	2015	2016
North	7.4	7.6	8.5	9.4	9.7	10.4
East	8.3	8.2	8.8	11.2	9.4	10.3
South	7.8	8.3	8.9	10.6	10.6	10.6
West	7.5	8.1	6.9	10.5	8.9	9.6
Centre	8.6	8.6	8.8	11.1	10.7	10.9
Island	**7.9**	**8.1**	**8.6**	**10.6**	**9.9**	**10.4**

The *richesse* was 10.4% in the North, 10.3% in the East, 10.6% in the South, 9.6% in the West and 10.9% in the Centre. Compared to the corresponding period in 2015, sucrose content at end-May 2015 was similar in the South but higher in all the other sectors by 0.7° in the North, 0.9° in the East, 0.7° in the West and 0.2° in the Centre. Sucrose content at the end of May for the present crop was higher than that in 2014 in the North, similar in the South but lagged behind in the other three sectors.

From end-April 2016 up to end-May 2016, *richesse* has improved in all sectors. The highest increment was observed in the West(2.7°) followed by the Centre (2.1°), the North (1.9°), the South (1.7°) and the East (1.5°). On average for the island, the increase in *richesse* was 1.8° in 2016 which was similar to the increment obtained in 2015 but lower than that obtained in 2014 (2.7°).

Island-wise, the *richesse* of 10.4% recorded at the end of May 2016 was higher than those of the corresponding period in 2015 (9.9%) but slightly lower than that of 2014 (10.6%).

4. CROP 2016

Weather during May 2016 was characterised by below normal rainfall, above normal solar radiation and air temperature close to the normal. Sugarcane fields located in the rainfed areas of the North, West and the low-lying areas of the East and South have faced water stress conditions. This has resulted in the generally lower elongation rates recorded in these sectors compared to those recorded at the same period in 2015. However, cumulative elongation and total stalk height at end of May 2016 are still better than those of May 2015and comparable to those of the respective normal. The short period of water stress coupled with above normal solar radiation and near normal temperature amplitude has favoured ripening resulting in *richesse* in most of the sectors and at island level being better than that of 2015. A normal crop is anticipated subject to no adverse climatic conditions being experienced during the remaining part of the crop cycle.

Figure 2. Stalk height at end-May 2016