MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2015 14 July 2016

SUGAR CANE CROP 2016

Status: End June 2016

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of June 2016 was above normal with an island average of 134 mm, representing 118% of the long-term mean (LTM) of 113 mm. Sector-wise, rainfall was above the LTM by 63 mm in the East and 99 mm in the Centre. In the South, rainfall in June 2016 was comparable to the LTM whereas in the North and West it was lagging behind the LTM by 15 mm and 27 mm, respectively.

Rainfall for the period October 2015 to June 2016 cumulated to 1720 mm, which is higher (by 4%) than the island long-term mean of 1650 mm for this period. During the same period 1018 mm were recorded in the North, 2019 mm in the East, 2038 mm in the South, 749 mm in the West and 2424 mm in the Centre. These figures represented 92%, 114%, 103%, 89% and 107% of the respective long-term mean.

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

	North	East	South	West	Centre	Island
2015	142 *(203)*	299 *(251)*	271 *(181)*	66 *(183)*	300 *(194)*	233 *(206)*
2016	**55** *(79)**	**182** *(153)*	**149** *(99)*	**9** *(25)*	**254** *(164)*	**134** *(118)*
LTM	70	119	150	36	155	113

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

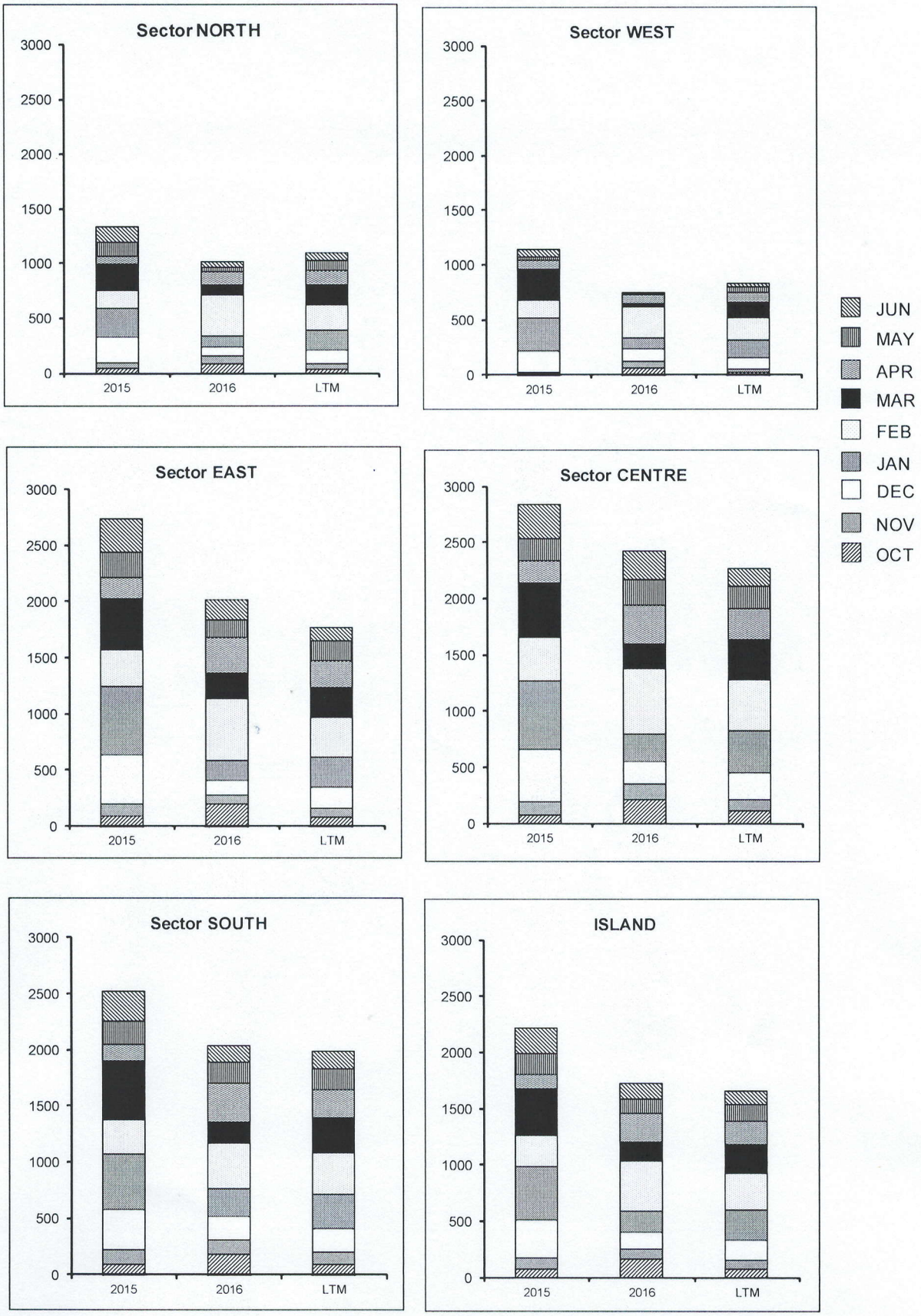
Table 1b. Cumulative rainfall (mm) from October 2015 to June 2016 for crop 2016 compared to that of crop 2015 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2015	1345 *(122)*	2742 *(155)*	2525 *(127)*	1136 *(135)*	2835 *(125)*	2220 *(135)*
2016	**1018** *(92)**	**2019** *(114)*	**2038** *(103)*	**749** *(89)*	**2424** *(107)*	**1720** *(104)*
LTM	1101	1769	1985	841	2263	1650

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1.Monthly rainfall (mm) for the period October 2015 to June 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 air temperatures recorded during the month of June 2016 on MSIRI agro-meteorological stations are given below.

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

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	June 2016	DevN*	June 2016	DevN*	June 2016	DevN*
Pamplemousses	25.9	-0.4	17.9	+1.1	8.0	-1.5
Réduit	23.2	-0.1	16.5	+0.5	6.7	-0.6
Belle Rive	22.2	-0.8	15.8	+1.1	6.4	-1.9
Union Park	22.6	+0.1	16.9	+0.7	5.7	-0.6

* Deviation from the Normal (1981-2010)

Mean maximum temperature during June 2016 was comparable to the normal at Réduit and Union Park whereas at the other two stations, it was below the normal by 0.4°C at Pamplemousses and 0.8°C at Belle Rive. Mean minimum temperature was above normal at all four stations and the difference ranged from 0.5°C at Réduit to 1.1°C at Pamplemousses and Belle Rive. The resulting mean amplitude was below normal at all stations, the difference being more than 0.5°C. Below normal temperature amplitude is not conducive to sucrose accumulation.

1.3 Sunshine (Table 3)

Data from the four MSIRI agro-meteorological stations showed that sunshine hours during June 2016 were above normal at stations located at the low altitude compared to the below normal sunshine duration recorded at higher altitude. Recorded bright sunshine as a percentage of the normal amounted to 110 at Pamplemousses, 103 at Réduit, 84 at Belle Rive and 96 at Union Park.

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

Station	June 2016	Normal	% of Normal
Pamplemousses	252	230	110
Réduit	226	219	103
Belle Rive	164	195	84
Union Park	140	146	96

2. STALK HEIGHT

Assessment of stalk height was carried out during the last week of June 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 June 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 June amounted to only 4.0 cm in the North, 2.9 cm in the East, 3.1 cm in the South, 5.2 cm in the West and 1.0 cm in the Centre. These figures were inferior by nearly 50% to those of the corresponding period last year. Compared to the normal for the same period, elongation was lagging well behind the normal in all sectors. The 3.3 cm average elongation for the island was inferior to that recorded in June 2015 (6.6 cm) and to the normal (8.0 cm).

Table 4a. Stalk elongation during the month of June

	Stalk elongation (cm) during June			June 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	4.0	8.0	11.5	50.0	34.7
East	2.9	6.1	7.3	47.5	39.8
South	3.1	6.3	7.2	49.2	42.9
West	5.2	9.2	7.2	56.5	72.6
Centre	1.0	1.8	4.1	55.6	24.6
Island	**3.3**	**6.6**	**8.0**	**50.2**	**41.5**

2.2 Cumulative elongation (Table 4b)

The cumulative stalk growth for the period end-December 2015 to end-June 2016 reached 197.6 cm in the North, 180.3 cm in both the East and the South, 193.6 cm in the West and 149.9 cm in the Centre. These cumulative growths exceeded those of 2015 in all sectors. For the same period, cumulative growth was comparable to the normal in the North and West, but lagged behind the normal in the other sectors. Island-wise the cumulative elongation of 181.8 cm was higher than that of the 2015 crop (172.8 cm) by 5.3%, but was slightly below the normal (184.4 cm) by 1.4%.

Table 4b. Cumulative elongation at end-June.

	Cumulative elongation (cm) at end- June			End-June 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	197.6	190.7	196.2	103.6	100.7
East	180.3	171.4	184.9	105.2	97.5
South	180.3	172.9	192.3	104.3	93.8
West	193.6	192.3	192.5	100.7	100.6
Centre	149.9	135.3	156.6	110.8	95.7
Island	**181.8**	**172.8**	**184.4**	**105.3**	**98.6**

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

Total stalk height at end June 2016 amounted to 221.7 cm in the North, 225.4 cm in the East, 221.7 cm in the South, 231.7 cm in the West and 195.7 cm in the Centre giving an island average of 222.2 cm. These figures exceeded those of the corresponding period in 2015 in sectors North, East and Centre, and were comparable in the other two sectors. Total stalk height at end-June 2016 was close to the normal in the North and West but lagged behind in the other sectors.

At island level, the total stalk height of 222.2 cm was higher than that of the corresponding period in 2015 by 4.7 cm (2.1%) but was below that of the normal by 6.4 cm (2.8%).

Table 4c. Stalk height at end-June.

	Stalk height (cm) at end-June			End-June 2016 as % of	
Sectors	**2016**	**2015**	**Normal**	**2015**	**Normal**
North	221.7	214.7	222.0	103.3	99.9
East	225.4	215.7	232.3	104.5	97.0
South	221.7	223.0	237.5	99.4	93.3
West	231.7	232.1	230.9	99.8	100.4
Centre	195.7	184.3	199.5	106.2	98.1
Island	**222.2**	**217.5**	**228.6**	**102.1**	**97.2**

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

During the last week of June 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-June 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			15.4	15.6	17.0			15.0		13.7		13.6	14.5	13.1	13.8	12.7
East			14.2				13.4			13.0		12.6	12.7	12.1		11.2
South	14.7	13.5	13.9	13.1		14.2	13.9		14.7	13.2	12.0	12.1	14.3	12.2	10.7	12.2
West			13.0			12.9				9.8		10.5	12.2	12.6		7.2
Centre	14.8	13.8					12.6					10.9	11.8	11.4		

The cane analysis data indicated higher sucrose contents in the early maturing varieties M 52/78, M 2256/88, M 703/89 and R 573 than in the mid-season ones such as M 1400/86, and in the late season R 570. However, improvement in sucrose content is still possible in the different varieties, even in the early varieties.

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

Sectors	MAY			JUNE		
	2014	2015	2016	2014	2015	2016
North	9.4	9.7	10.4	12.6	10.8	13.7
East	11.2	9.4	10.3	12.7	11.5	12.6
South	10.6	10.6	10.6	12.3	11.8	13.1
West	10.5	8.9	9.6	12.2	11.8	11.5
Centre	11.1	10.7	10.9	12.7	11.7	12.7
Island	**10.6**	**9.9**	**10.4**	**12.5**	**11.5**	**12.9**

The *richesse* from the end-June 2016 samples was 13.7% in the North, 12.6% in the East, 13.1% in the South, 11.5% in the West and 12.7% in the Centre. Compared to the corresponding period in 2015, sucrose content at end-June 2016 was higher in sectors North by 2.9°, in the East by 1.1°, in the South by 1.3° and in the Centre by 1.0°. In the West, sucrose content in June 2016 was slightly lower than that of June 2015 due to the low sucrose content obtained from fields harvested late during the season. Sucrose content at the end of June for the present crop was comparable to that in 2014 in the East and Centre, higher in the North and South but lagged behind in the West.

From end-May 2016 up to end-June 2016, *richesse* has improved in all sectors. The highest increment of 3.3° was observed in the North followed by 2.5° in the South, 2.3° in the East, 1.9° in the West and 1.8° in the Centre. On average for the island, the increase in *richesse* was 2.5° in 2016 which was higher than that obtained in 2015 and in 2014.

Island-wise, the *richesse* of 12.9% recorded at the end of June 2016 was higher than those of the corresponding periods in 2015 (11.5%) and in 2014 (12.5%).

4. CROP 2016

In general, weather has been average to favourable for sucrose accumulation during June 2016 as witnessed by the better sucrose content during that month compared to the same period in 2015 and 2014. With the onset of winter conditions, stalk elongation in June 2016 was inferior to that recorded at the same period in 2015. However, cumulative elongation and total stalk height recorded at the end of June 2016 was slightly higher than that at June 2015. Improvement in cane productivity is dependent on climatic conditions that would prevail during the coming winter months.

Though it is still early to draw any firm conclusion, as the area harvested to-date is only 8% and in three sectors only, harvest data is indicative of a normal harvest.

Figure 2. Stalk height at end-June 2016