

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2015

10 July 2015

SUGAR CANE CROP 2015

Status: End June 2015

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of June was above normal with an island average of 233 mm, representing 206% of the long-term mean of 113 mm. Above normal rainfall was recorded in all sectors with 142 mm in the North, 299 mm in the East, 271 mm in the South, 66 mm in the West and 300 mm in the Centre. These figures represented 203%, 251%, 181%, 183% and 194% of their long-term mean, respectively.

The cumulative rainfall over the island during the period October 2014 to June 2015 amounted to 2220 mm, which is higher than the island long-term mean of 1667 mm for this period (+33%). During the same period, a total of 1345 mm was recorded in the North, 2742 mm in the East, 2525 mm in the South, 1136 mm in the West and 2835 mm in the Centre. Compared to the respective long-term mean of these sectors, cumulative rainfall represented 121% in the North, 154% in the East, 125% in the South, 134% in the West and 125% in the Centre.

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

	North	East	South	West	Centre	Island
2014	19 (27)	88 (74)	94 (63)	2 (6)	96 (62)	67 (59)
2015	142 (203)*	299 (251)	271 (181)	66 (183)	300 (194)	233 (206)
LTM	70	119	150	36	155	113

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

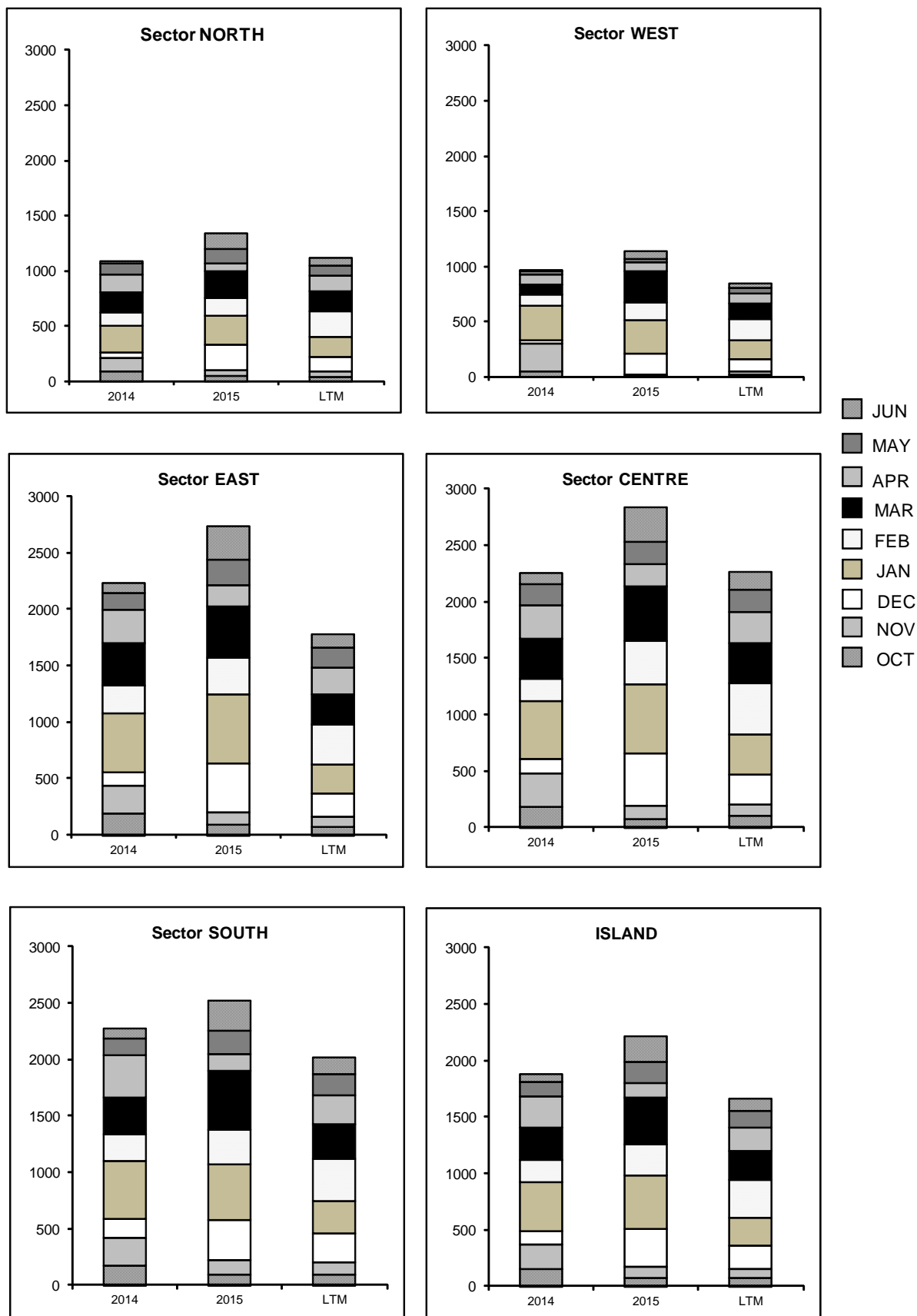
Table 1b. Cumulative rainfall (mm) from October 2014 to June 2015 for crop 2015 compared to that of crop 2014 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2014	1090 (98)	2239 (126)	2276 (113)	957 (113)	2257 (100)	1878 (113)
2015	1345 (121)*	2742 (154)	2525 (125)	1136 (134)	2835 (125)	2220 (133)
LTM	1116	1778	2018	845	2262	1667

* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for the period October 2014 to June 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)

The data on maximum and minimum temperatures recorded during the month of June 2015 on MSIRI agro-meteorological stations are given below.

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

Stations	Maximum (°C)		Minimum (°C)		Amplitude (°C)	
	June 2015	DevN*	June 2015	DevN*	June 2015	DevN*
Pamplemousses	26.7	+0.4	18.8	+2.0	7.9	-1.6
Réduit	24.4	+1.1	17.9	+1.9	6.5	-0.8
Belle Rive	23.1	+0.1	16.9	+2.2	6.2	-2.1
Union Park	23.4	+0.9	18.4	+2.4	5.0	-1.5

* Deviation from the Normal (1981-2010)

Mean maximum temperature during June 2015 was comparable to the normal at Belle Rive but above normal at all the other three stations. The mean monthly minimum temperature exceeded the normal at all stations ranging from 1.9°C at Réduit to 2.4°C at Union Park. The resulting mean amplitude lagged behind the normal at all stations. Below normal temperature amplitude is not conducive to sucrose accumulation.

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during June 2015 were below normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 92 at Pamplemousses, 81 at Réduit, 72 at Belle Rive and 77 at Union Park. Below normal solar radiation is detrimental to photosynthesis and hence to growth and sucrose accumulation.

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

Station	June 2015	Normal	% of Normal
Pamplemousses	211	230	92
Réduit	177	219	81
Belle Rive	141	195	72
Union Park	113	146	77

2. STALK HEIGHT

During the last week of June 2015, stalk height was measured at 53 sites representative of the various agro-climatic zones, varieties, and crop categories in the five sugar cane sectors of the island. Data collected were compared to those at the corresponding period in May 2014 and with the mean of the five best cane yielding crops of the last ten years in each sector (referred to as normal).

2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of June 2015 amounted to 8.0 cm in the North, 6.1 cm in the East, 6.3 cm in the South, 9.2 cm in the West and 1.8 cm in the Centre. These growth increments exceeded those of 2014 in the North, East and West but lagged behind in the South and Centre. Compared to the normal for the corresponding period, growth was below normal in all sectors except in the West. The island stalk elongation of 6.6 cm was comparable to that of the corresponding period in 2014 but below the normal by 1.3 cm, i.e. by 16%.

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

Sectors	Stalk elongation (cm) during June			June 2015 as % of	
	2015	2014	Normal	2014	Normal
North	8.0	6.5	11.2	123.1	71.3
East	6.1	4.3	6.6	141.9	91.9
South	6.3	7.6	7.2	82.9	87.0
West	9.2	7.3	6.8	126.0	136.1
Centre	1.8	2.8	4.1	64.3	44.3
Island	6.6	6.0	7.9	110.0	83.1

2.2 Cumulative elongation (Table 4b)

Cane growth from end-December 2014 to end-June 2015 amounted to 190.7 cm in the North, 171.4 cm in the East, 172.9 cm in the South, 192.3 cm in the West and 135.3 cm in the Centre. These data lagged behind those of 2014 and the normal in all sectors. Island-wise the cumulative elongation of 172.8 cm was lower than that of the 2014 crop (188.7 cm) by 8.5% and to that of the normal (185.9 cm) by 7.1%.

Table 4b. Cumulative elongation at end-June 2015

Sectors	Cumulative elongation (cm) at end- June			End-June 2015 as % of	
	2015	2014	Normal	2014	Normal
North	190.7	192.8	196.6	98.9	97.0
East	171.4	192.9	184.9	88.9	92.7
South	172.9	194.5	193.6	88.9	89.3
West	192.3	202.6	193.3	94.9	99.5
Centre	135.3	156.2	156.6	86.6	86.4
Island	172.8	188.7	185.9	91.5	92.9

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

At end-June 2015, total cane height stood at 214.7 cm in the North, 215.7 cm in the East, 223.0 cm in the South, 232.1 cm in the West and 184.3 cm in the Centre giving an island average of 217.5 cm. Compared to the same period in 2014, cane was shorter by 2.5 cm in the North, 33.4 cm in the East, 4.0 cm in the South, 4.3 cm in the West and 23.9 cm in the Centre. Total cane height at the end of June 2015 was inferior to the normal in all sectors except in the West where it was slightly higher than the normal.

Island-wise the total cane height of 217.5 cm at end-June 2015 lagged behind that of end-June 2014 by 12.7 cm (5.5%) and to that of the normal by 13.3 cm (5.8%).

Table 4c. Stalk height at end-June

Sectors	Stalk height (cm) at end-June			End-June 2015 as % of	
	2015	2014	Normal	2014	Normal
North	214.7	217.2	222.5	98.9	96.5
East	215.7	249.1	232.7	86.6	92.7
South	223.0	227.0	240.7	98.2	92.6
West	232.1	236.4	228.5	98.2	101.6
Centre	184.3	208.2	199.5	88.5	92.4
Island	217.5	230.2	230.8	94.5	94.2

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

During the last week of June 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-June 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 1989/99	R 579	M 1672/90	R 570
North			12.0	14.4			11.7	9.8	9.8	10.4	11.4		11.2	10.7	11.7
East		12.0	13.0			13.5	10.9	13.7	12.9	11.5	12.5		10.1		10.6
South	15.3	13.6	12.8	11.4	15.1	14.4			12.2	12.2	12.6		10.4	10.1	10.4
West			13.7		13.5				10.9	10.6	11.7	12.1	11.7		9.4
Centre	14.5	12.3				11.7				10.8	11.4		9.8		

Figure 2. Stalk height at end-June 2015.

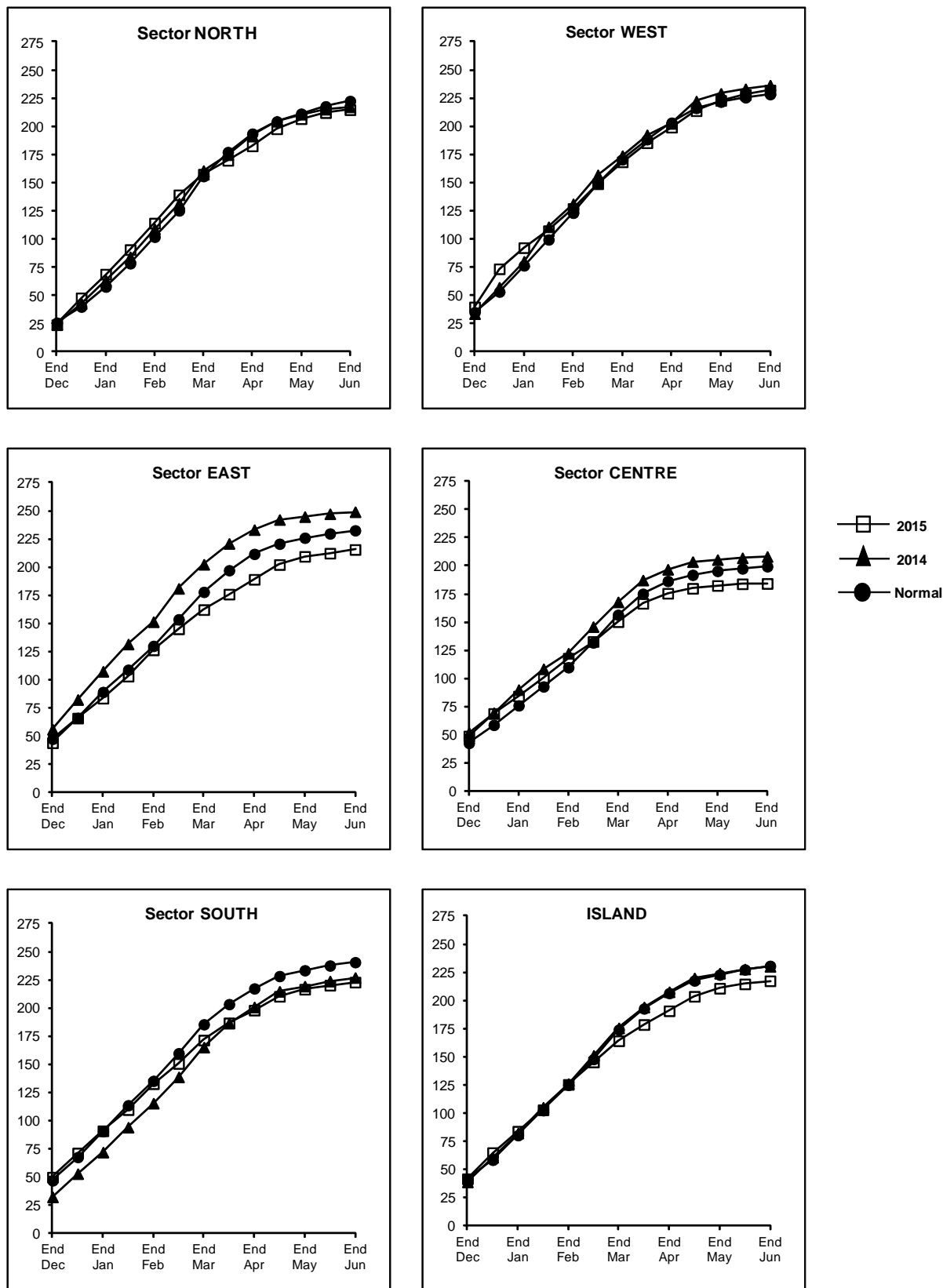


Table 5b. Comparison of Pol % cane (richesse) at the end of May and June 2013, 2014 and 2015.

Sectors	MAY			JUNE		
	2013	2014	2015	2013	2014	2015
North	10.6	9.4	9.7	13.3	12.6	10.8
East	11.4	11.2	9.4	13.5	12.7	11.5
South	11.0	10.6	10.6	13.7	12.3	11.8
West	10.5	10.5	8.9	12.8	12.2	11.8
Centre	11.2	11.1	10.7	13.5	12.7	11.7
Island	11.0	10.6	9.9	13.5	12.5	11.5

The *richesse* at end-June 2015 was 10.8% in the North, 11.5% in the East, 11.7% in the Centre and 11.8% both in the South and West. Compared to the corresponding period in 2014, sucrose content at end-June 2015 was lagging behind in all sectors by 1.8° in the North, 1.2° in the East, 0.5° in the South, 0.4° in the West and 1.0° in the Centre. Sucrose content at the end of June 2015 was also lagging behind that of 2013 in all sectors.

However, from end-May 2015 up to end-June 2015, *richesse* improved in all sectors. The highest increment of 2.9° was observed in the West followed by 2.1° in the East, 1.2° in the South, 1.1° in the North and 1.0° in the Centre. On average for the island, the increase in *richesse* was 1.6° in 2015 compared to 1.9° in 2014 and 2.5° in 2013.

Island-wise, the *richesse* of 11.5% recorded at the end of June 2015 was inferior to those of the corresponding period in 2014 (12.5%) and 2013 (13.5%) by 1.0° and 2.0°, respectively.

4. CROP 2015

As at 27 June 2015, 2973 ha representing about 8.5% of miller-planters' land had been harvested compared to 2704 ha (8.2%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 13.8% in the East, 11.8% in the South and 6.5% in the Centre. Harvest has not yet started in the North and West. An analysis of cane productivity based on the harvest statistics for miller-planters in sectors East, South and Centre follows. Because of the centralization of milling activities and since all the canes from the Centre are crushed at factories in the East, harvest statistics relative to extraction rate and sugar productivity have been combined for these two sectors.

4.1 Cane productivity (Table 6a)

Cane productivity for the island as at 27 June 2015 amounted to 89.1 TCH and was higher than the 82.6 TCH recorded in 2014 by 6.5 TCH (8 %). Sector-wise, the best cane productivity to-date was recorded in the East with 92.1 TCH, followed by the South (86.4 TCH) and the Centre (84.0 TCH). Compared to the same period in 2014, cane productivity recorded to-date was higher in the East by 10.5 TCH, the South by 1.1 TCH and the Centre by 7.3 TCH.

Table 6a. Cane productivity (TCH) as at end June for the 2014 and 2015 crops

	East	South	Centre	Island
2014	81.6	85.3	76.7	82.6
2015	92.1	86.4	84.0	89.1

4.2 Extraction (Table 6b)

The recorded island extraction rate of 8.18% was lower than at the corresponding period in 2014 (8.95%) by 0.77°. Sector-wise, the extraction rate recorded was 7.99% in the East-Centre and 8.39% in the South. Compared to the corresponding period last year, extraction rate to-date was lower by 0.76° in sector East-Centre and 0.89° in the South.

Table 6b. Extraction rate (%) as at end June for the 2014 and 2015 crops

	East -Centre	South	Island
2014	8.75	9.28	8.95
2015	7.99	8.39	8.18

4.3 Sugar productivity (Table 6c)

Island-wise, the recorded sugar productivity of 7.29 TSH was lower than at the corresponding period in 2014 (7.39 TSH) by 0.10 tonne (1.4%). Sector-wise sugar productivity was 7.30 TSH in the East-Centre and 7.25 TSH in the South. Sugar productivity at end-June 2015 was higher than at the corresponding period in 2014 by 0.24 TSH in sector East-Centre but was lower by 0.67 TSH in the South.

Table 6c. Sugar productivity (TSH) as at end June for the 2014 and 2015 crops

	East -Centre	South	Island
2014	7.06	7.92	7.39
2015	7.30	7.25	7.29

5. 2015 CROP PRODUCTIVITY

Climatic conditions in terms of excessive rainfall, reduced solar radiation and below normal temperature amplitude during the month of June have not been conducive to sucrose accumulation. This is reflected in the *richesse* recorded over the island which was below those obtained during the same corresponding period in 2014 and 2013. Even from the harvest statistics at factory level, extraction rate in sectors East-Centre and South for June 2015 was lagging behind that of June 2014. As expected with winter conditions setting in and flowering of the crop, growth rates slowed and stalk height at the end of June 2015 over the island was lagging behind that of June 2014 and the normal by nearly 6%.

It is still too early to draw a firm conclusion on the crop productivity given the area harvested is only 8.2%. Moreover weather conditions in the coming months will determine the final yield particularly with respect to extraction rate.