MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2010

Status: End June 2010

1. CLIMATE

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

The island's average rainfall for the month of June 2010 was 63 mm over the sugar cane areas and represented 53% of the long-term mean (120 mm). Sector-wise, rainfall was below the long-term mean by 46% in the North (39 mm), 41% in the East (73 mm), 52% in the South (75 mm), 58% in the West (14 mm) and 40% in the Centre (97 mm).

Cumulative rainfall for the period October 2009 to June 2010 amounted to 1248 mm in the North, 2830 mm in the East, 2390 mm in the South, 1008 mm in the West and 2118 mm in the Centre. The average cumulative rainfall for the same period for the island was 2109 mm. It represented 108%, 161%, 115%, 119%, 92% and 123% of the long-term mean of the respective sector and of the island.

Table 1a. Rainfall (mm) of June for crops 2009, 2010 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2009	59 *(82)*	114 *(93)*	167 *(106)*	21 *(64)*	108 *(66)*	110 *(92)*
2010	**39** *(54)*	**73** *(59)*	**75** *(48)*	**14** *(42)*	**97** *(60)*	**63** *(53)*
LTM	72	123	157	33	163	120

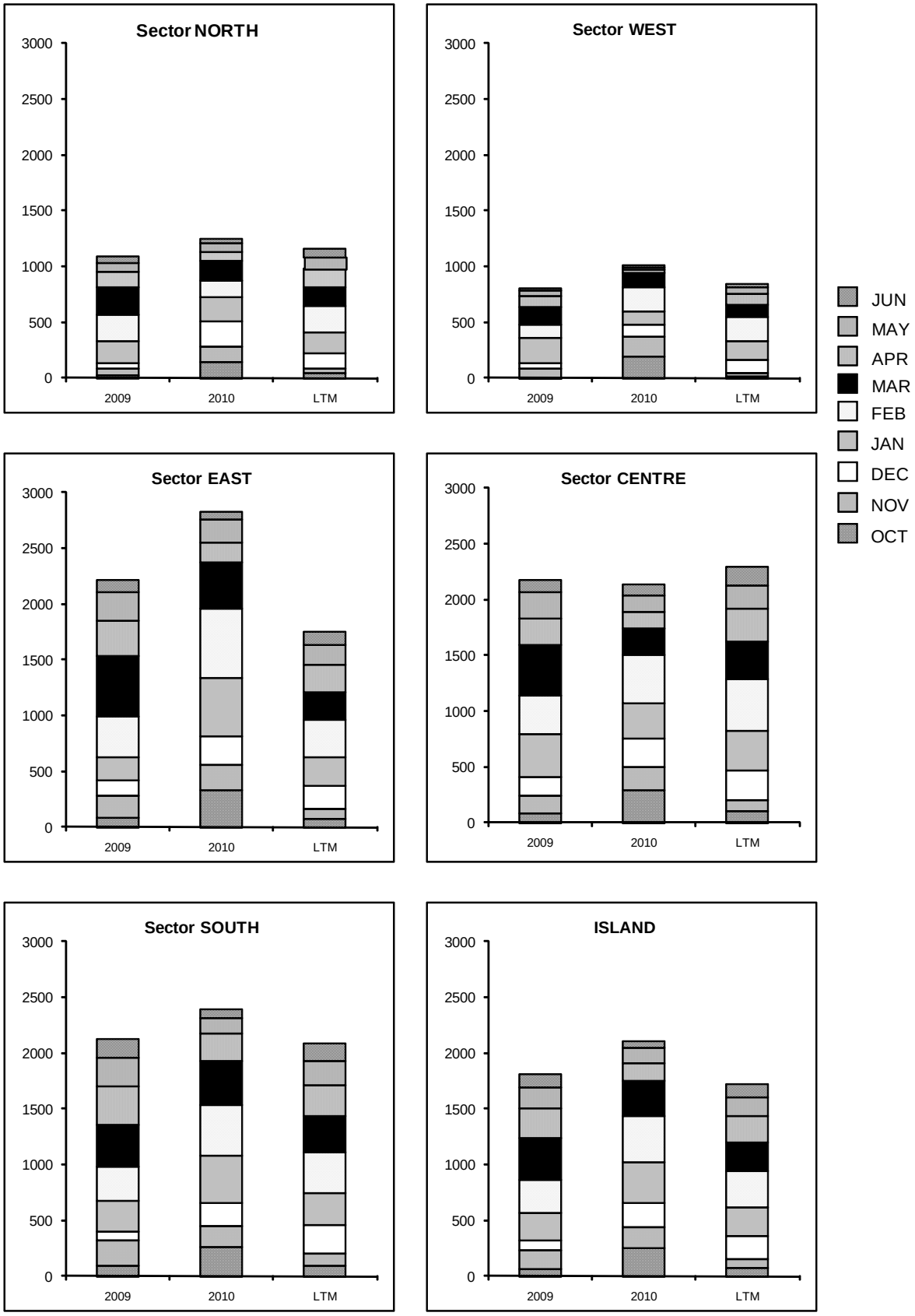
* figures in brackets are % of LTM

Table 1b. Cumulative rainfall (mm) from Oct 2009 to June 2010 for crop 2010 compared to that for crop 2009 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2009	1088 *(94)*	2216 *(126)*	2122 *(102)*	803 *(95)*	2173 *(95)*	1807 *(105)*
2010	**1248** *(108)*	**2830** *(161)*	**2390** *(115)*	**1008** *(119)*	**2118** *(92)*	**2109** *(123)*
LTM	1156	1756	2085	847	2291	1722

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

Figure 1. Monthly rainfall (mm) for period Oct 2009 to June 2010 for the 2010 crop compared to that of the same period for crop 2009 and of the long-term mean (LTM).



1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of June 2010 on MSIRI agro-meteorological stations are given below.

The mean maximum temperature exceeded the normal by 0.8 ^{o}C at Pamplemousses, 1.7 ^{o}C at Réduit, 1.9 ^{o}C at Belle Rive and 1.8 ^{o}C at Union Park. Above normal mean minimum temperature was also recorded at Pamplemousses (1.3 ^{o}C), Réduit (0.7 ^{o}C), Union Park (1.4 ^{o}C) and Belle Rive (1.9 ^{o}C). The resulting mean amplitude was above normal at Réduit and Union Park, similar at Belle Rive but below normal at Pamplemousses.

Table 2 Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in June 2010

Station	Maximum (^{o}C)	Minimum (^{o}C)	Amplitude (^{o}C)
Pamplemousses	**27.3** *(26.5) **	**17.9** *(16.6)*	**9.4** *(9.9)*
Réduit	**25.0** *(23.3)*	**16.8** *(16.1)*	**8.2** *(7.2)*
Belle Rive	**24.8** *(22.9)*	**16.6** *(14.7)*	**8.2** *(8.2)*
Union Park	**24.4** *(22.6)*	**17.4** *(16.0)*	**7.0** *(6.6)*

* figures in brackets are the Normal (1971-00)

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during June 2010 were above normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 109 at Pamplemousses, 107 at Réduit, 118 at Belle Rive and 121 at Union Park.

Table 3 Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in June 2010

Station	June 2010	Normal	% of Normal
Pamplemousses	242	222	109
Réduit	228	214	107
Belle Rive	217	184	118
Union Park	176	145	121

2. STALK HEIGHT (TABLE 2)

Cane growth was assessed during the last week of June 2010 in the 63 sites representative of the five sugar cane sectors of the island. These sites cover the various agro-climatic zones, the varieties under cultivation and the stages of development of the crop. Data collected are compared with those of June 2009 and with the mean for that month 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 amounted to 10.0 cm in the North, 7.5 cm in the East, 6.8 cm in the South, 6.1 cm in the West and 4.6 cm in the Centre. Thus, stalk elongation during the month of June 2010 lagged behind that of the corresponding month in 2009 by 3.6 cm in the North, 2.0 cm in the East, 2.8 cm in the West and 0.4 cm in the Centre whereas in the South it was better than June 2009 by 0.7 cm. Compared to the normal for the same period, elongation was higher in the East and South by 0.8 cm and 0.5 cm, respectively, whereas in the other sectors, it lagged by 0.5 cm in the North, 1.0 cm in the West and 0.6 cm in the Centre. The island average of 7.5 cm was 1.4 cm below that of June 2009 but 1.0 cm above the normal.

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

	Stalk elongation (cm) during June			June 2010 as % of	
Sectors	**2010**	**2009**	**Normal**	**2009**	**Normal**
North	10.0	13.6	10.5	73.5	95.1
East	7.5	9.5	6.7	78.9	111.9
South	6.8	6.1	6.3	111.5	108.6
West	6.1	8.9	7.1	68.5	85.4
Centre	4.6	5.0	5.2	92.0	89.1
Island	**7.5**	**8.9**	**6.5**	**84.2**	**114.6**

2.2 Cumulative Elongation (Table 4b)

Cumulative growth from end-December 2009 to end-June 2010 was 185.0 cm in the North, 188.2 cm in the East, 190.5 cm in the South, 189.6 cm in the West and 149.5 cm in the Centre. Cumulative elongation were inferior to those of the 2009 crop in four sectors, namely by 8.1% in the North, 3.2% in the South, 3.4% in the West and 2.1% in the Centre. In the East, it was better by 0.9% when compared to that of the 2009 crop. When considering the same period, cumulative elongation was below normal in all sectors. The difference was 16.2 cm in the North, 8.3 cm in the East, 13.5 cm in the South, 6.4 cm in the West and 24.9 cm in the Centre. Island-wise the cumulative elongation of 184.5 cm was below that of the 2009 crop (190.8 cm) and the normal (191.7 cm) by 3.3% and 3.8%, respectively.

Table 4b. Cumulative elongation at end-June.

	Cum. elongation (cm) at end- June			June 2010 as % of	
Sectors	**2010**	**2009**	**Normal**	**2009**	**Normal**
North	185.0	201.2	201.2	91.9	92.0
East	188.2	186.6	196.5	100.9	95.8
South	190.5	196.7	204.0	96.8	93.4
West	189.6	196.3	196.0	96.6	96.7
Centre	149.5	152.7	174.4	97.9	85.7
Island	**184.5**	**190.8**	**191.7**	**96.7**	**96.2**

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

By end-June 2010, total stalk height reached 209.7 cm in the North, 227.8 cm in the East, 241.8 cm in the South, 232.8 cm in the West and 197.1 cm in the Centre. Cane was shorter in all sectors compared to the same period in 2009, the difference being 25.9 cm in the North, 5.1 cm in the East, 15.9 cm in the South, 5.0 cm in the West and 6.8 cm in the Centre. Total cane height at the end of June 2010 exceeded the normal by 6.8 cm only in the West. In the other sectors it lagged behind the normal, namely by 20.3 cm in the North, 13.4 cm in the East, 13.8 cm in the South and 23.0 cm in the Centre.

Island-wise the total cane height of 225.5 cm at end-June 2010 was lower than that of end-June 2009 by 13.5 cm (5.7%) and below the normal by 8.9 cm (3.8%).

Table 4c. Stalk height at end-June

	Stalk height (cm) at end-June			End-June 2010 as % of	
Sectors	**2010**	**2009**	**Normal**	**2009**	**Normal**
North	209.7	235.6	230.0	89.0	91.2
East	227.8	232.9	241.2	97.8	94.4
South	241.8	257.7	255.6	93.8	94.6
West	232.8	237.8	226.0	97.9	103.0
Centre	197.1	203.9	220.1	96.7	89.5
Island	**225.5**	**239.0**	**234.4**	**94.3**	**96.2**

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

Cane samples from miller-planters' land in all factory areas and covering the main cultivated varieties were analyzed for sucrose content. The average pol % cane (*richesse*) was calculated on the basis of area under cultivation of each variety in the different factory areas of each sector. The results are compared with those of the last two years.

Table 5a Average Pol % Cane (richesse) at end-June 2010.

Sectors	**M 52/78**	**M 703/89**	**R 573**	**M 695/69**	**R 575**	**M 387/85**	**M 1246/84**	**M 2256/89**	**M 2593/92**	**M 1400/86**	**M 1176/77**	**R 579**	**M 1394/86**	**M 3035/66**	**R 570**
North			16.0	13.1			11.0		12.4	10.9	12.8	9.5			12.7
East		14.0	13.5	13.1		13.8	12.8	12.9	11.5	13.0	12.8	11.1		12.6	10.8
South	15.9	13.0	13.3	13.8	14.4				13.9	11.8	13.2	11.6	12.5	10.9	11.4
West			14.7	14.6	14.1	14.0				12.7	12.9	13.9			12.7
Centre	15.4	13.8		12.0		12.4				11.4	11.6	9.9		10.2	10.2

Figure 2. Stalk height at end-June 2010.

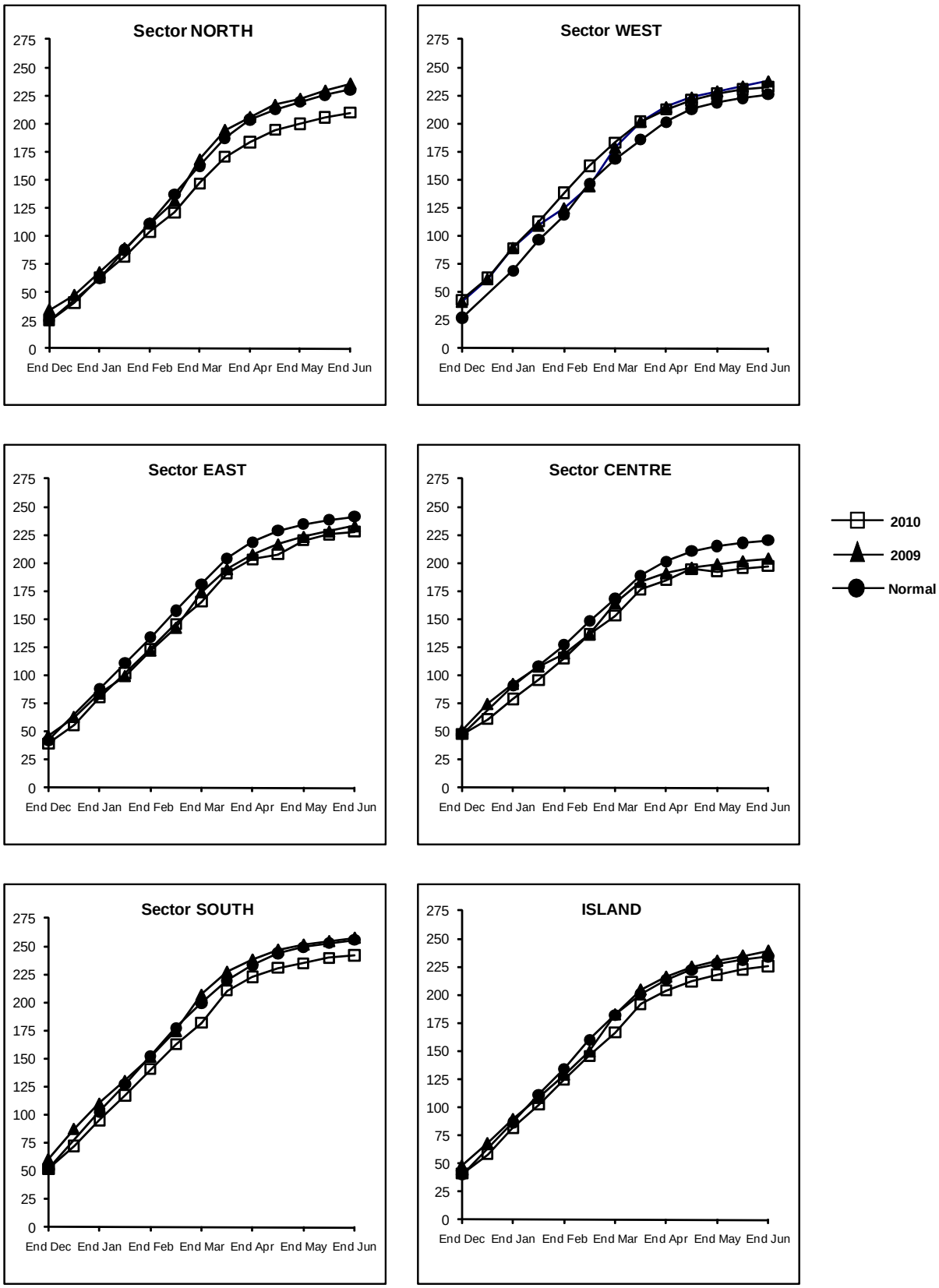


Table 5b Comparison of Pol % Cane (richesse) at end of May and June 2008, 2009 and 2010.

Sectors	MAY			JUNE		
	2008	2009	2010	2008	2009	2010
North	10.3	8.7	10.0	11.4	10.9	12.2
East	10.9	10.3	10.6	12.7	12.6	12.4
South	9.6	9.3	10.8	11.3	11.6	12.7
West	9.3	9.6	10.9	11.3	12.1	13.5
Centre	10.3	10.6	11.1	12.3	12.5	12.6
Island	**10.1**	**9.6**	**10.6**	**11.8**	**11.8**	**12.6**

The *richesse* derived from the end-June sampling was 12.2% in the North, 12.4% in the East, 12.7% in the South, 13.5% in the West and 12.6% in the Centre. Compared to the corresponding period in 2009, sucrose content was comparable in the Centre and in the East but was superior in the North, South and West by 1.3°, 1.1° and 1.4° respectively. Sucrose content at the end of June for the present crop was also higher than that of the corresponding period in 2008 in sectors North, South, West and Centre by 0.8°, 1.4°, 2.2° and 0.3° respectively. In the East, *richesse* lagged behind that of 2008 by 0.3°.

From end-May 2010 up to end-June 2010, *richesse* increased in all sectors. The increase was substantial with 2.6° in the West, 2.2° in the North, 1.9° in the South, 1.8° in the East and 1.5° in the Centre.

Island-wise, the *richesse* of 12.6% recorded at the end of June 2010 was higher by 0.8° when compared to those of the corresponding period of crops 2009 and 2008.

4. CROP 2010

As at 26 June 2010, 2134 ha representing about 5.9% of miller-planters' land had been harvested compared to 2377 ha (6.9%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 8.5% in the East, 9.2% in the South and 5.0% in the Center. Harvest has not yet started in the North and West sectors. 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 FUEL, 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 26 June 2010 amounted to 79.8 TCH and was lower than the 84.8 TCH recorded in 2009 by 5.0 TCH (5.9%). Sector-wise, the best cane productivity to-date was recorded in the Centre with 89.2 TCH, followed by the South (82.4 TCH) and the East (75.2 TCH). Compared to the same period in 2009, cane productivity recorded to-date was lower in the East and South by 2.9 TCH and 2.8 TCH respectively whereas in the Centre it was equivalent

Table 6a Cane productivity (TCH) as at end June for the 2009 and 2010 crops

	East	South	Centre	Island
2009	78.1	85.2	89.0	84.8
2010	75.2	82.4	89.2	79.8

4.2 Extraction (Table 6b)

The recorded island extraction rate of 9.18% was higher than at the corresponding period in 2009 (8.93%) by 0.25°. Sector-wise, the extraction rate recorded was 9.62% in the East-Centre and 8.77% in the South. Compared to the corresponding period last year, extraction rate to-date was higher by 0.65° in sector East-Centre but lower by 0.09° in the South.

Table 6b Extraction rate (%) as at end June for the 2009 and 2010 crops

	East -Centre	South	Island
2009	8.97	8.86	8.93
2010	9.62	8.77	9.18

4.3 Sugar productivity (Table 6c)

Island-wise, the recorded sugar productivity of 7.33 TSH was lower than at the corresponding period in 2009 (7.57 TSH) by 0.24 tonne (3.2%). Sector-wise sugar productivity was 7.41 TSH in the East-Centre and 7.23 TSH in the South. In sectors East-Centre sugar productivity was higher than at the corresponding period in 2009 by 0.22 TSH whereas in the South it was lower by 0.32 TSH.

Table 6c Sugar productivity (TSH) as at end June for the 2009 and 2010 crops

	East -Centre	South	Island
2009	7.19	7.55	7.57
2010	7.41	7.23	7.33

5. 2010 CROP PRODUCTIVITY

Weather during the month of June has been generally favourable for ripening with above normal solar radiation and temperature amplitude coupled with below normal rainfall. The latter has been however too low to maintain growth in the North sector to boost cane productivity, especially in the late harvested crops of that sector.

Though it is still too early to draw any firm conclusion as the area harvested is only 5.9% and in three sectors only, harvest data to-date is indicative of a better extraction rate but lower cane productivity in 2010 when compared to 2009.