MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Ref A 1/2010 3 June 2010

SUGAR CANE CROP 2010

Status: End May 2010

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of May was below normal with an island average of 135 mm, representing 80% of the long-term mean of 168 mm. Below normal rainfall was recorded in sectors North, South, West and Centre with 79 mm, 139 mm, 19 mm and 155 mm, which represented 74%, 66%, 34% and 74% of the long-term mean respectively. In the East, the 206 mm of rain recorded was above the long-term mean by 14%.

Cumulative rainfall for the period October 2009 to May 2010 amounted to 2045 mm, which is higher than the island long-term mean of 1600 mm for this period by 28%. During the same period, a total of 1209 mm was recorded in the North, 2757 mm in the East, 2315 mm in the South, 994 mm in the West and 2021 mm in the Centre. Compared to the respective long-term mean of these sectors, cumulative rainfall represented 111% in the North, 169% in the East, 120% in the South, 122% in the West and 95% in the Centre.

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

	North	East	South	West	Centre	Island
2009	79 *(74)*	252 *(140)*	257 *(121)*	45 *(80)*	233 *(111)*	195 *(116)*
2010	**79** *(74)*	**206** *(114)*	**139** *(66)*	**19** *(34)*	**155** *(74)*	**135** *(80)*
LTM	107	180	212	56	210	168

* figures in brackets are % of LTM

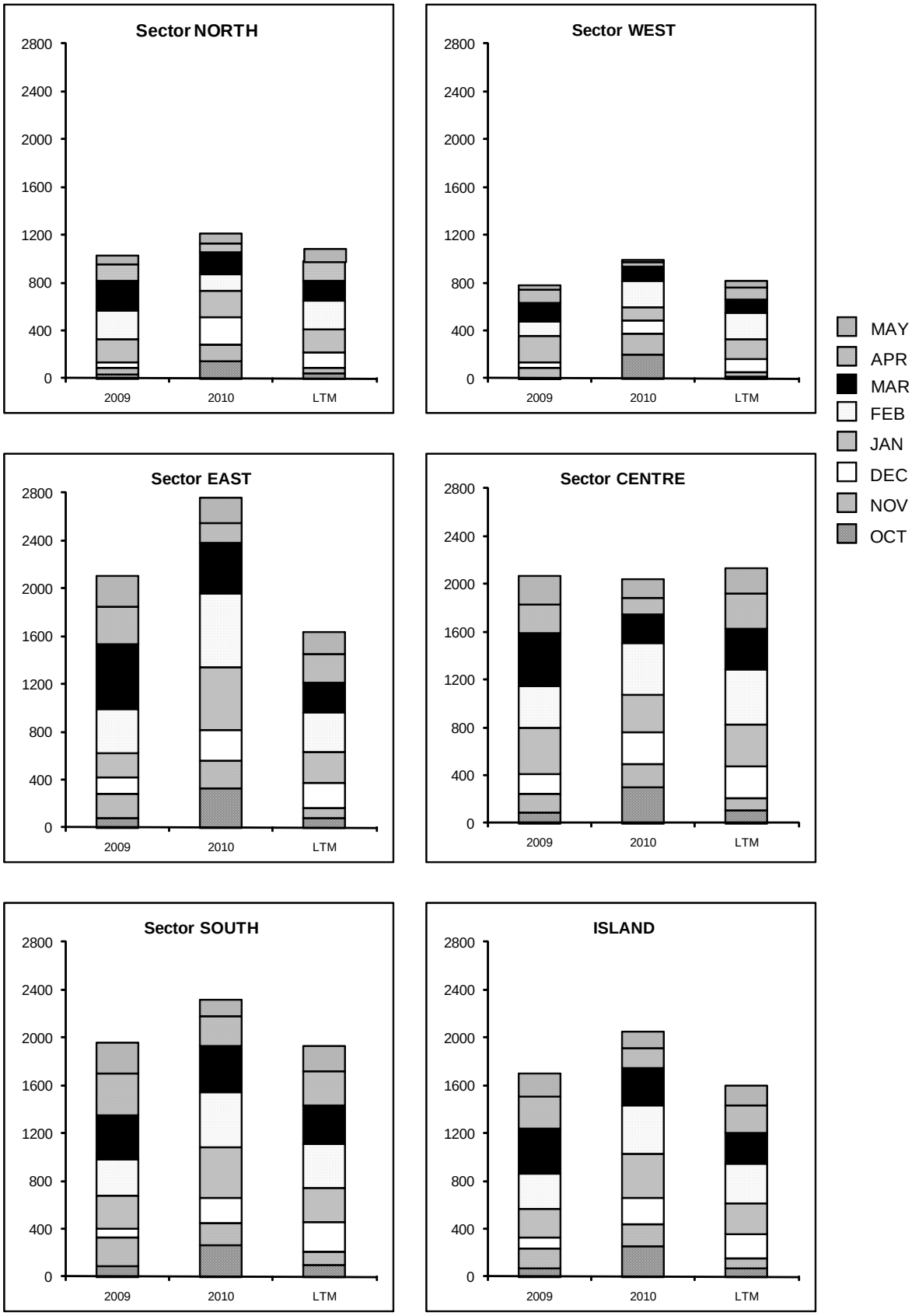
Table 1b. Cumulative rainfall (mm) from Oct 2009 to May 2010 for crop 2010 compared to that for crop 2009 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2009	1029 *(95)*	2102 *(129)*	1955 *(101)*	782 *(96)*	2065 *(97)*	1698 *(106)*
2010	**1209** *(111)*	**2757** *(169)*	**2315** *(120)*	**994** *(122)*	**2021** *(95)*	**2045** *(128)*
LTM	1084	1633	1928	814	2128	1600

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for period Oct 2009 to May 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 May 2010 on MSIRI agro-meteorological stations are given below.

The mean maximum temperature exceeded the normal by 0.4 ^{o}C at Pamplemousses, 1.5 ^{o}C at Réduit, and 1.7 ^{o}C at both Belle Rive and Union Park. Above normal mean minimum temperature was also recorded at Pamplemousses (1.5 ^{o}C), Réduit (1.1 ^{o}C), Union Park (1.9 ^{o}C) and Belle Rive (1.8 ^{o}C). The resulting mean amplitude was above normal at Réduit, close to normal at Belle Rive but below normal at Pamplemousses and Union Park.

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

Station	Maximum (^{o}C)	Minimum (^{o}C)	Amplitude (^{o}C)
Pamplemousses	**28.6** *(28.2)* *	**20.1** *(18.6)*	**8.5** *(9.6)*
Réduit	**26.5** *(25.0)*	**19.0** *(17.9)*	**7.5** *(7.1)*
Belle Rive	**26.3** *(24.6)*	**18.3** *(16.5)*	**8.0** *(8.1)*
Union Park	**26.0** *(24.3)*	**19.5** *(17.6)*	**6.5** *(6.7)*

* 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 May 2010 were well above normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 112 at Pamplemousses and Réduit, 113 at Belle Rive and 116 at Union Park.

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

Station	May 2010	Normal	% of Normal
Pamplemousses	265	236	112
Réduit	247	221	112
Belle Rive	226	201	113
Union Park	188	163	116

2. STALK HEIGHT (TABLE 2)

Cane growth was assessed during the last week of May 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 May 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 May was 16.5 cm in the North, 17.0 cm in the East, 12.2 cm in the South, 14.1 cm in the West and 7.8 cm in the Centre. Compared to the corresponding month in 2009, elongation was higher by 0.3 cm in the North and 1.2 cm in the East. It was similar in the West but lagged behind that of May 2009 by 1.1 cm in the South and 0.3 cm in the Centre. Compared to the normal for the same period, elongation was higher in the North and East by 0.5 cm and 1.1 cm respectively. In the other sectors it was below the normal by 4.3 cm in the South, 3.2 cm in the West and 5.9 cm in the Centre. The island average elongation of 14.2 cm was similar to that of May 2009 but was below the normal (14.5 cm) by 0.3 cm.

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

	Stalk elongation (cm) during May			May 2010 as % of	
Sectors	**2010**	**2009**	**Normal**	**2009**	**Normal**
North	16.5	16.2	16.0	101.9	103.3
East	17.0	15.8	15.9	107.6	106.9
South	12.2	13.3	16.5	91.7	74.0
West	14.1	14.1	17.3	100.0	81.4
Centre	7.8	8.1	13.7	96.3	57.0
Island	**14.2**	**14.2**	**14.5**	**100.1**	**97.8**

2.2 Cumulative Elongation (Table 4b)

Stalk growth from end-December 2009 to end-May 2010 cumulated to 175.0 cm in the North, 180.7 cm in the East, 183.7 cm in the South, 183.5 cm in the West and 144.9 cm in the Centre. Cumulative elongation lagged behind those of the 2009 crop in four sectors, namely by 6.7% in the North, 3.6% in the South, 2.1% in the West and 1.9% in the Centre. In the East, it was better by 2.0% when compared to that of the 2009 crop. When considering the same period, cumulative elongation was below normal in all sectors. The difference was 15.7 cm in the North, 9.1 cm in the East, 14.0 cm in the South, 5.4 cm in the West and 24.4 cm in the Centre. Island-wise the cumulative elongation of 177.0 cm was below that of the 2009 crop (181.9 cm) and the normal (185.2 cm) by 2.7% and 4.4%, respectively.

Table 4b. Cumulative elongation at end-May.

	Cum. elongation (cm) at end- May			May 2010 as % of	
Sectors	**2010**	**2009**	**Normal**	**2009**	**Normal**
North	175.0	187.6	190.7	93.3	91.8
East	180.7	177.1	189.8	102.0	95.2
South	183.7	190.6	197.7	96.4	92.9
West	183.5	187.4	188.9	97.9	97.2
Centre	144.9	147.7	169.3	98.1	85.6
Island	**177.0**	**181.9**	**185.2**	**97.3**	**95.6**

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

Total stalk height at end-May 2010 reached 199.7 cm in the North, 220.3 cm in the East, 235.0 cm in the South, 226.7 cm in the West and 192.5 cm in the Centre. Compared to the same period in 2009, cane was shorter in all sectors, the difference being 22.3 cm in the North, 3.1 cm in the East, 16.6 cm in the South, 2.2 cm in the West and 6.4 cm in the Centre. Total cane height at the end of May 2010 exceeded the normal by 7.9 cm only in the West. In the other sectors it lagged behind the normal, namely by 19.7 cm in the North, 14.2 cm in the East, 14.4 cm in the South and 22.5 cm in the Centre.

Island-wise the total cane height of 218.0 cm at end-May 2010 lagged behind that of end-May 2009 by 12.1 cm (5.3%) and the normal by 9.9 cm (4.4%).

Table 4c. Stalk height at end-May

	Stalk height (cm) at end-May			End-May 2010 as % of	
Sectors	**2010**	**2009**	**Normal**	**2009**	**Normal**
North	199.7	222.0	219.4	90.0	91.0
East	220.3	223.4	234.5	98.6	93.9
South	235.0	251.6	249.4	93.4	94.2
West	226.7	228.9	218.8	99.0	103.6
Centre	192.5	198.9	215.0	96.8	89.6
Island	**218.0**	**230.1**	**227.9**	**94.7**	**95.6**

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 May 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			13.1	11.4			8.8		8.8	8.9	10.5	9.0			10.4
East	14.7	13.1	11.9	11.2	14.2	13.4	9.9	11.6	9.3	10.6	10.8	9.3		9.4	7.9
South	14.1	12.5	11.8	11.5	12.9				10.7	10.3	11.1	9.8	8.7	8.7	8.0
West			13.2	11.2	11.6	11.2				9.6	10.2	10.9			10.0
Centre	14.4	12.3		9.7		10.8				10.1	9.3	9.2		7.6	7.6

The data clearly indicate a higher sucrose content at most sites under the early varieties M 52/78, M 703/89, R 573, M 695/69 and R 575 compared to the mid- and late-season ones.

Figure 2. Stalk height at end-May 2010.

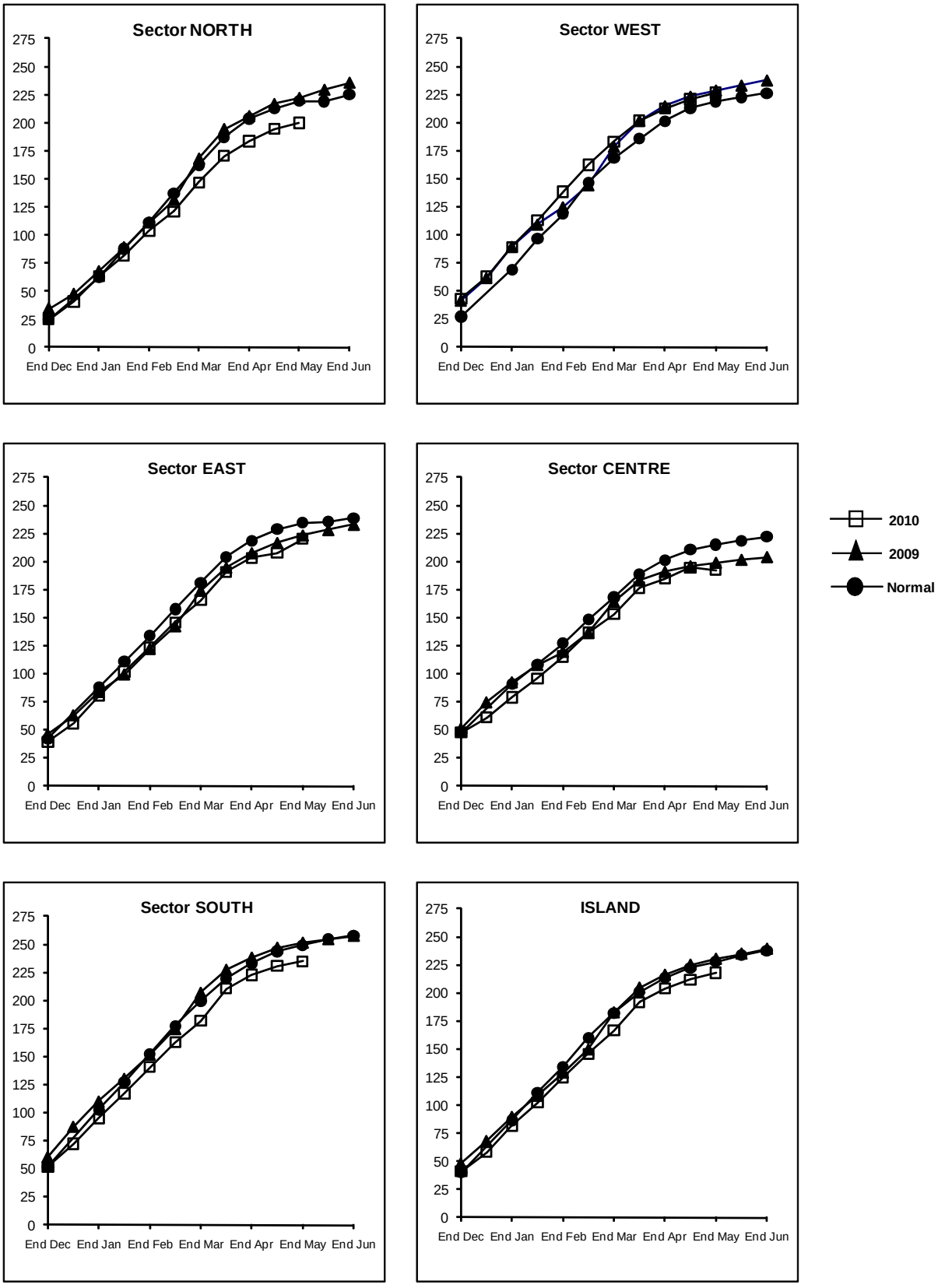


Table 5b Comparison of Pol % Cane (richesse) at the end of April and May 2008, 2009 and 2010.

Sectors	APRIL			MAY		
	2008	2009	2010	2008	2009	2010
North	7.4	5.6	7.9	10.3	8.7	10.0
East	9.3	7.2	8.5	10.9	10.3	10.6
South	7.9	6.4	8.2	9.6	9.3	10.8
West	7.4	6.3	8.7	9.3	9.6	10.9
Centre	8.5	7.7	8.8	10.3	10.6	11.1
Island	**8.2**	**6.6**	**8.3**	**10.1**	**9.6**	**10.6**

The *richesse* derived from the end-May sampling was 10.0% in the North, 10.6% in the East, 10.8% in the South, 10.9% in the West and 11.1% in the Centre. Compared to the corresponding period in 2009, sucrose content at end-May 2010 was superior in all sectors. The advantage was 1.3^{o} in the North, 0.3^{o} in the East, 1.5^{o} in the South, 1.3^{o} in the West and 0.5^{o} in the Centre. Sucrose content at the end of May of the present crop cycle was also higher than that of the corresponding period in 2008 in sectors South, West and Centre by 1.2^{o}, 1.6^{o} and 0.8^{o} respectively. In the North and East, *richesse* lagged behind that of 2008 by 0.3^{o}.

From end-April 2010 up to end-May 2010, *richesse* improved in all sectors. The highest increment of 2.6^{o} was observed in the South followed by 2.3^{o} in the Centre, 2.2^{o} in the West and 2.1^{o} in both the North and East. For the corresponding period last year, the increments recorded were 3.1^{o} in the North and East sectors, 2.9^{o} in the South and Centre sectors, and 3.3^{o} in sector West. On average for the island, the increase in *richesse* was 2.3^{o} in 2010 compared to 3.0^{o} in 2009 for the same period.

Island-wise, the *richesse* of 10.6% recorded at the end of May 2010 is superior to that of the corresponding period in 2009 and 2008 by 1.0^{o} and 0.5^{o}, respectively.

4. CROP 2010

Weather during May 2010 has been favourable to both growth and ripening. This is reflected in the elongation rate being similar to that of 2009 and only slightly lower than the normal as well as in the sucrose accumulation pattern. When considering the late end of harvest of the 2009 crop, it is interesting to note that total cane height is lagging by only about 5% compared to both the normal and that of last year while sucrose accumulation to-date is better than in the past two years. A normal crop is anticipated subject to no adverse climatic conditions being experienced during the remaining part of the crop cycle.