MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Ref A 1/2009 6 August 2009

SUGAR CANE CROP 2009

Status: End July 2009

1. CLIMATE

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

The island's average rainfall for the month of July 2009 was 164 mm over the sugar cane areas and represented 128% of the long-term mean (128 mm). Sector-wise rainfall for the month of July was above the long-term mean in the North (79 mm) by 8%, the East (204 mm) by 76%, the South (217 mm) by 21% and the Centre (205 mm) by 13%. In the West (14 mm), it was below the long-term mean by 44%.

Cumulative rainfall for the period October 2008 to July 2009 amounted to 1167 mm in the North, 2420 mm in the East, 2339 mm in the South, 817 mm in the West and 2378 mm in the Centre. The average cumulative rainfall for the same period for the island was 1971 mm. These rainfall amounts represented 95%, 129%, 103%, 94%, 96% and 107% of the long-term mean of the respective sector and of the island.

Table 1a. Rainfall (mm) of July for crops 2008, 2009 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2008	76 *(104)*	173 *(149)*	140 *(78)*	22 *(88)*	195 *(108)*	130 *(102)*
2009	**79** *(108)*	**204** *(176)*	**217** *(121)*	**14** *(56)*	**205** *(113)*	**164** *(128)*
LTM	73	116	180	25	181	128

* figures in brackets are % of LTM

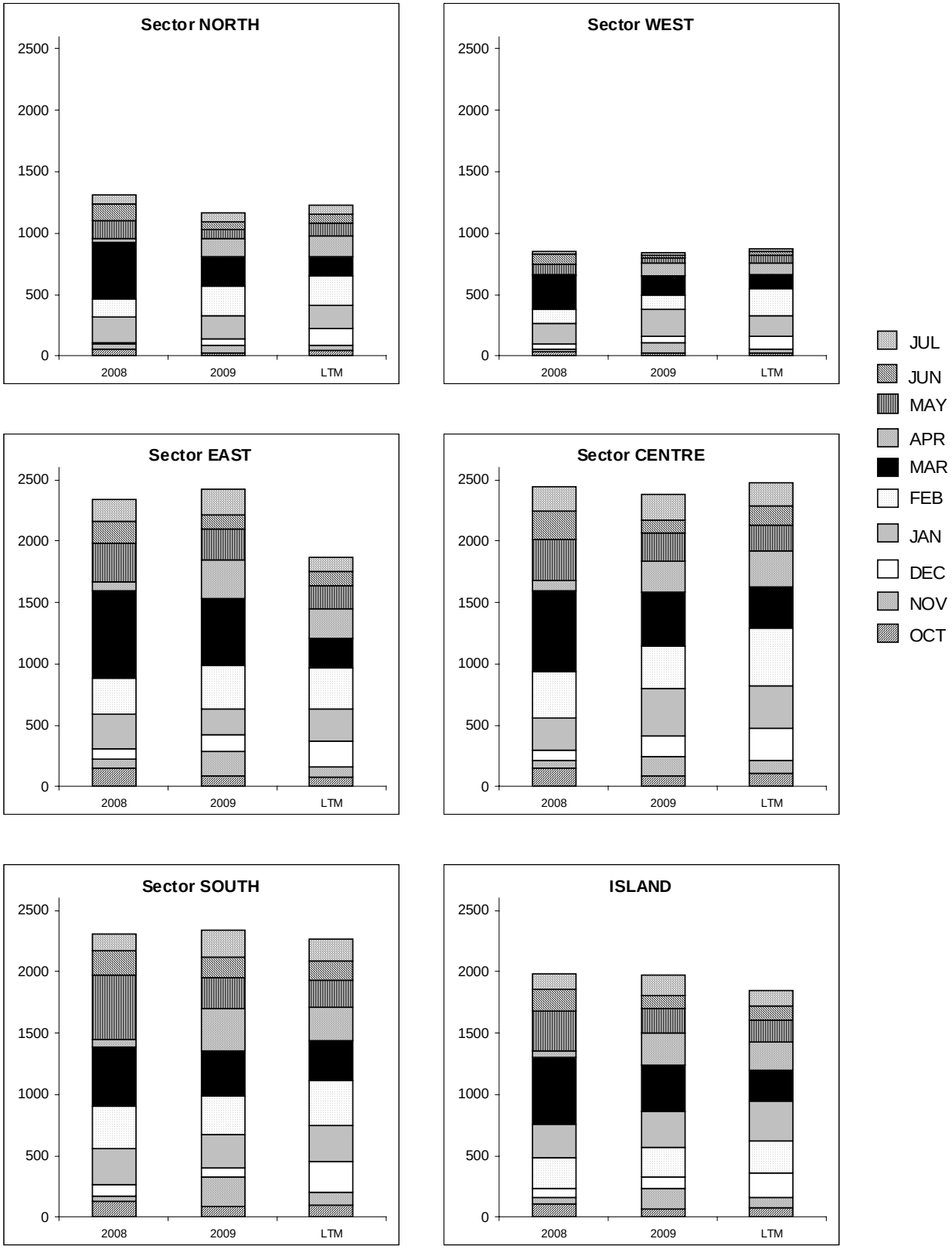
Table 1b. Cumulative rainfall (mm) from Oct 2008 to July 2009 for crop 2009 compared to that of crop 2008 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2008	1311 *(107)*	2335 *(125)*	2312 *(102)*	856 *(98)*	2442 *(99)*	1983 *(107)*
2009	**1167** *(95)*	**2420** *(129)*	**2339** *(103)*	**817** *(94)*	**2378** *(96)*	**1971** *(107)*
LTM	1229	1872	2265	872	2472	1849

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1. Monthly rainfall (mm) for period Oct 2008 to July 2009 for the 2009 crop compared to that of the same period for crop 2008 and of the long-term mean (LTM).



1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of July 2009 at MSIRI agro-meteorological stations are given below.

The mean maximum temperature was above normal at Union Park by 0.2 ^{o}C and at Belle Rive by 0.8 ^{o}C. At the other two stations it was below normal by 0.2 ^{o}C at Réduit and by 0.6 ^{o}C at Pamplemousses. The mean minimum temperature was above normal at all stations, the difference ranging from 0.4^{o}C at Réduit to 1.4^{o}C at Belle Rive. The resulting mean amplitude was below normal at all stations.

Table 2 Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in July 2009

Station	Maximum (^{o}C)	Minimum (^{o}C)	Amplitude (^{o}C)
Pamplemousses	**25.1** *(25.7) **	**17.2** *(16.0)*	**7.9** *(9.7)*
Réduit	**22.2** *(22.4)*	**15.7** *(15.3)*	**6.5** *(7.1)*
Belle Rive	**22.7** *(21.9)*	**15.4** *(14.0)*	**7.3** *(7.9)*
Union Park	**21.7** *(21.5)*	**16.3** *(15.2)*	**5.4** *(6.3)*

* figures in brackets are the Normal (1971-2000)

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during July 2009 were comparable to the normal at Union Park but below normal at the other stations. Recorded bright sunshine as a percentage of the normal amounted to 97 at Pamplemousses, 96 at Réduit, 99 at Belle Rive and 81 at Union Park.

Table 3 Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in June 2009

Station	July 2009	Normal	% of Normal
Pamplemousses	231	238	97
Réduit	212	221	96
Belle Rive	184	186	99
Union Park	111	138	81

2. Sucrose Accumulation (TABLES 4A AND 4B)

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 4a Average Pol % Cane (*richesse*) at end July 2009.

Sectors	M 52/78	M 703/89	R 573	M 695/69	R 575	M 387/85	M 1246/84	M 2256/88	M 1176/77	M 1400/86	R 579	M 3035/66	R 570
North			16.0	15.1			13.8		14.5	13.2	11.7		12.9
East			14.2	14.0			13.3	14.7	15.0	13.1	12.7	13.0	12.4
South	15.3	13.5	14.0	13.8					13.9	13.0	12.2		11.8
West			14.9	13.9	14.9	14.7			12.9	13.4	16.8		12.1
Centre				12.2		14.2			14.3	12.5	12.2	11.6	10.8

The *richesse* at end-July 2009 was 13.8% in the North, 13.5% in the East, 13.2% in the South, 14.0% in the West and 12.5% in the Centre. Compared to the corresponding period in 2008, *richesse* was lagging behind in the East by 0.7^{o}, in the South by 0.5^{o}, in the West by 0.2^{o} and in the Centre by 0.7^{o} whereas, in the North, it was higher by 0.8^{o}. Sucrose content at the end of July for the present crop was behind that of the corresponding period in 2007 in sectors East, South and Centre, the difference being 0.2^{o}, 0.5^{o} and 0.4^{o} respectively. In sectors North and West, it was higher than that of 2007 by 1.0^{o} and 0.2^{o}.

Table 4b Comparison of Pol % Cane (richesse) at the end of June and July 2007, 2008 and 2009.

Sectors	JUNE			JULY		
	2007	2008	2009	2007	2008	2009
North	11.1	11.4	10.9	12.8	13.0	13.8
East	13.0	12.7	12.6	13.7	14.2	13.5
South	12.1	11.3	11.6	13.7	13.7	13.2
West	12.2	11.3	12.1	13.8	14.2	14.0
Centre	12.9	12.3	12.5	12.9	13.2	12.5
Island	**12.2**	**11.8**	**11.8**	**13.4**	**13.7**	**13.4**

From end-June 2009 to end-July 2009, *richesse* has improved in all sectors except for the Centre. The highest increment of 2.9^{o} was observed in the North followed by 1.9^{o} in the West, 1.6^{o} in the South and 0.9^{o} in the East. For the corresponding period last year, the increments recorded were 1.6^{o} in the North, 1.5^{o} in the East, 2.4^{o} in the South, 2.9^{o} in the West and 0.9^{o} the Centre. On average, the increase in *richesse* was 1.2^{o} in 2007 and 1.9^{o} in 2008 compared to 1.6^{o} in 2009 for the same period.

Island-wise, the *richesse* of 13.4% at the end of July 2009 was similar to that at the corresponding period in 2007 but below the 13.7^{o} for the corresponding period in 2008.

4. CROP 2009

As at 25 July 2009, 7152 ha representing about 21 % of miller-planters' land had been harvested compared to 6469 ha (19%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 3% in the North, 22% in the East, 26% in the South, 28% in the West and 20% in the Centre. An analysis of cane and sugar productivity based on the harvest statistics for miller-planters follows. However, following the centralization of milling activities and the transfer of canes from one factory area to another, the comparisons made are not strictly comparable for sugar productivity and extraction rates except for the North, West and South sectors where data for the same factory areas are presented. Since all the canes from the Centre sector is being sent to the East, harvest statistics in terms of extraction rate and sugar productivity have been combined for these two sectors.

4.1 Cane productivity (Table 5a)

Cane productivity for the island as at 25 July 2009 amounted to 84.8 TCH and was higher than the 78.0 TCH recorded in 2008. Sector-wise, the best cane productivity to-date was recorded in the West with 95.0 TCH, followed by the South (83.8 TCH), the Centre (83.0 TCH) and both the North and East (82.8 TCH). Cane productivity to-date was higher than at the corresponding period in 2008 by 15.7 TCH in the North, 7.6 TCH in the East, 1.3 TCH in the South, 15.4 TCH in the West and 4.3 TCH in the Centre.

Table 5a Cane productivity (TCH) as at end June for the 2008 and 2009 crops

	North	East	South	West	Centre	Island
2008	67.1	75.2	82.5	*79.6*	78.7	78.0
2009	82.8	82.8	83.8	95.0	83.0	84.8

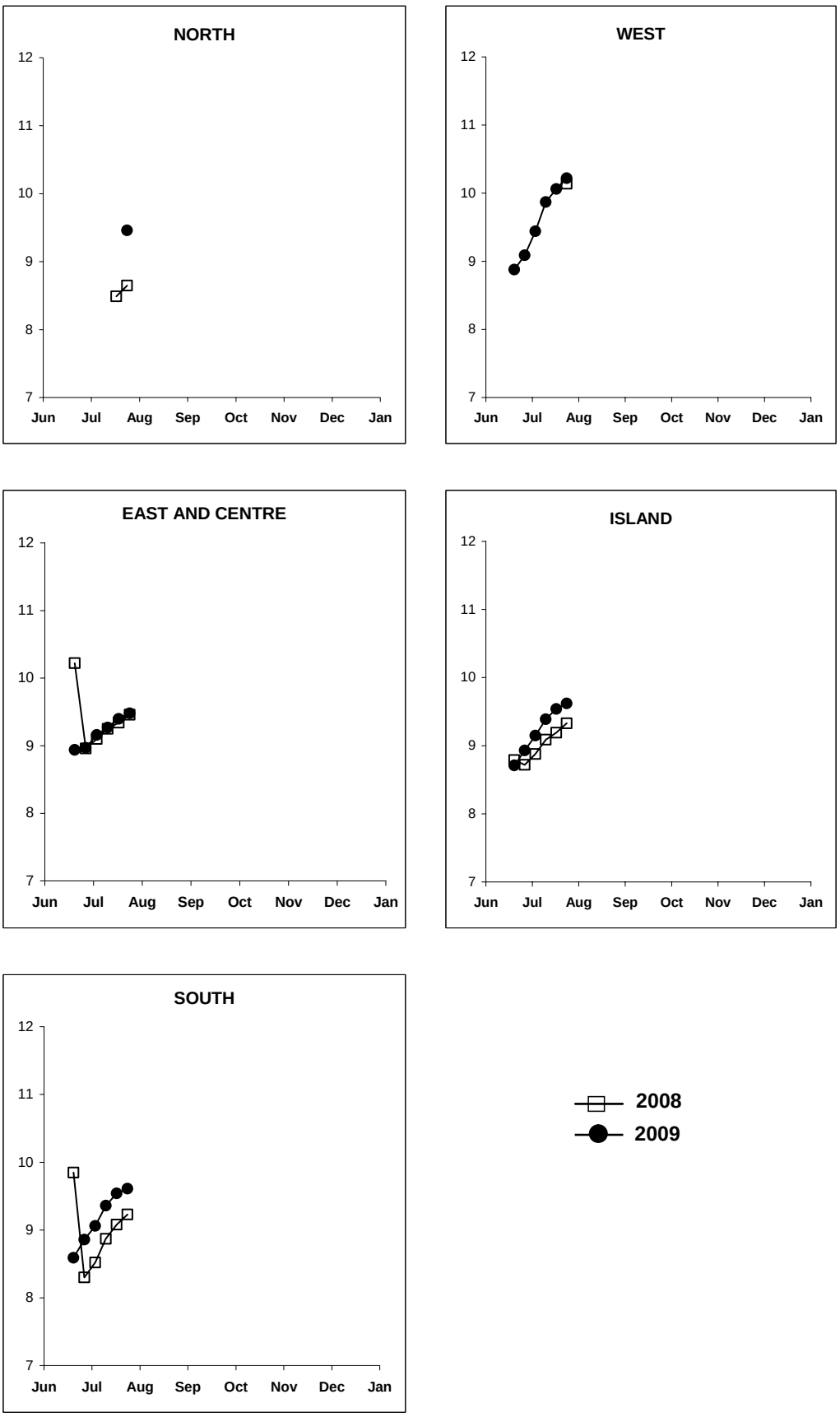
4.2 Extraction (Table 5b and Figure 2)

The recorded island extraction rate of 9.62% was higher than that of the corresponding period in 2008 (9.33%) by 0.29^{o}. Sector-wise, extraction rates recorded to-date were 9.46% in the North, 9.48% in the East-Centre, 9.61% in the South and 10.22% in the West. Compared with the corresponding period last year, extraction rate to-date was higher in all sectors, the advantage being 0.81^{o} in the North, 0.02^{o} in the East-Centre, 0.38^{o} in the South and 0.08^{o} in the West. It should be noted that last year's extraction rate for East-Centre sector included part of the cane harvested from Mon Loisir factory area.

Table 6b Extraction rate (%) as at end July for the 2008 and 2009 crops

	North	East -Centre	South	West	Island
2008	8.65	9.46	9.23	10.14	9.33
2009	9.46	9.48	9.61	10.22	9.62

Figure 2. Evolution of extraction rate for the 2008 and 2009 crops



4.3 Sugar productivity (Table 6c)

Island-wise, the recorded sugar productivity of 8.16 TSH exceeded that of the corresponding period in 2008 (7.28 TSH) by 0.88 tonne. Sector-wise sugar productivity was 7.83 TSH in the North, 7.85 in the East-Centre, 8.05 TSH in the South and 9.71 TSH in the West. Sugar productivity was higher in all sectors compared to that of the corresponding period in 2008.

Table 6c Sugar productivity (TSH) as at end July for the 2008 and 2009 crops

	North	East -Centre	South	West	Island
2008	5.80	7.19	7.61	8.07	7.28
2009	7.83	7.85	8.05	9.71	8.16

5. 2009 CROP PRODUCTIVITY

Weather experienced during the month of July has been unfavourable to ripening in the East, South and Centre as a result of the high rainfall namely and the below normal temperature amplitude. In the North and West, the stress caused by the low rainfall contributed positively to sucrose accumulation despite the below normal temperature amplitude recorded.

The better cane productivity and extraction rates, recorded this year since the start of the harvest season, are maintaining themselves. Cane productivity is exceeding that of 2008 by 6.8 TCH (8.7%) while extraction rate is higher by 0.29^{o}. The combined effect of higher cane yield and improved extraction rate is giving 0.88 tonne (12%) more sugar per hectare to-date compared to the corresponding period in 2008 for the island.