

# MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Ref A 1/2008

7 October 2008

## SUGAR CANE CROP 2008

**Status: End September 2008**

### 1. CLIMATE

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

Rainfall recorded during the month of September 2008 over the cane areas of the island was 361 mm and represented 436% of the long term mean (83 mm) of the month. It was 268 mm in the North, 444 mm in the East, 381 mm in the South, 243 mm in the West and 386 mm in the Centre. These amounts represented 609%, 562%, 340%, 1215%, and 306% of the respective long term mean for the sectors.

Rainfall for the period October 2007 to September 2008 for the island amounted to 2425 mm, i.e. 118% of the long-term mean of 2060 mm. During the same period, 1616 mm were recorded in the North, 2883 mm in the East, 2802 mm in the South, 1112 mm in the West and 2923 mm in the Centre. These cumulated rainfall represented 121%, 140%, 110%, 121% and 105% of the respective long-term mean. Rainfall recorded in all sectors was excessive for proper ripening.

**Table 1a Rainfall (mm) of September for crops 2007, 2008 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2007</b>	27 (61)	95 (120)	116 (104)	6 (30)	102 (81)	80 (96)
<b>2008</b>	<b>268</b> (609)	<b>444</b> (562)	<b>381</b> (340)	<b>243</b> (1215)	<b>386</b> (306)	<b>361</b> (436)
<b>LTM</b>	44	79	112	20	126	83

\* figures in brackets are % of LTM

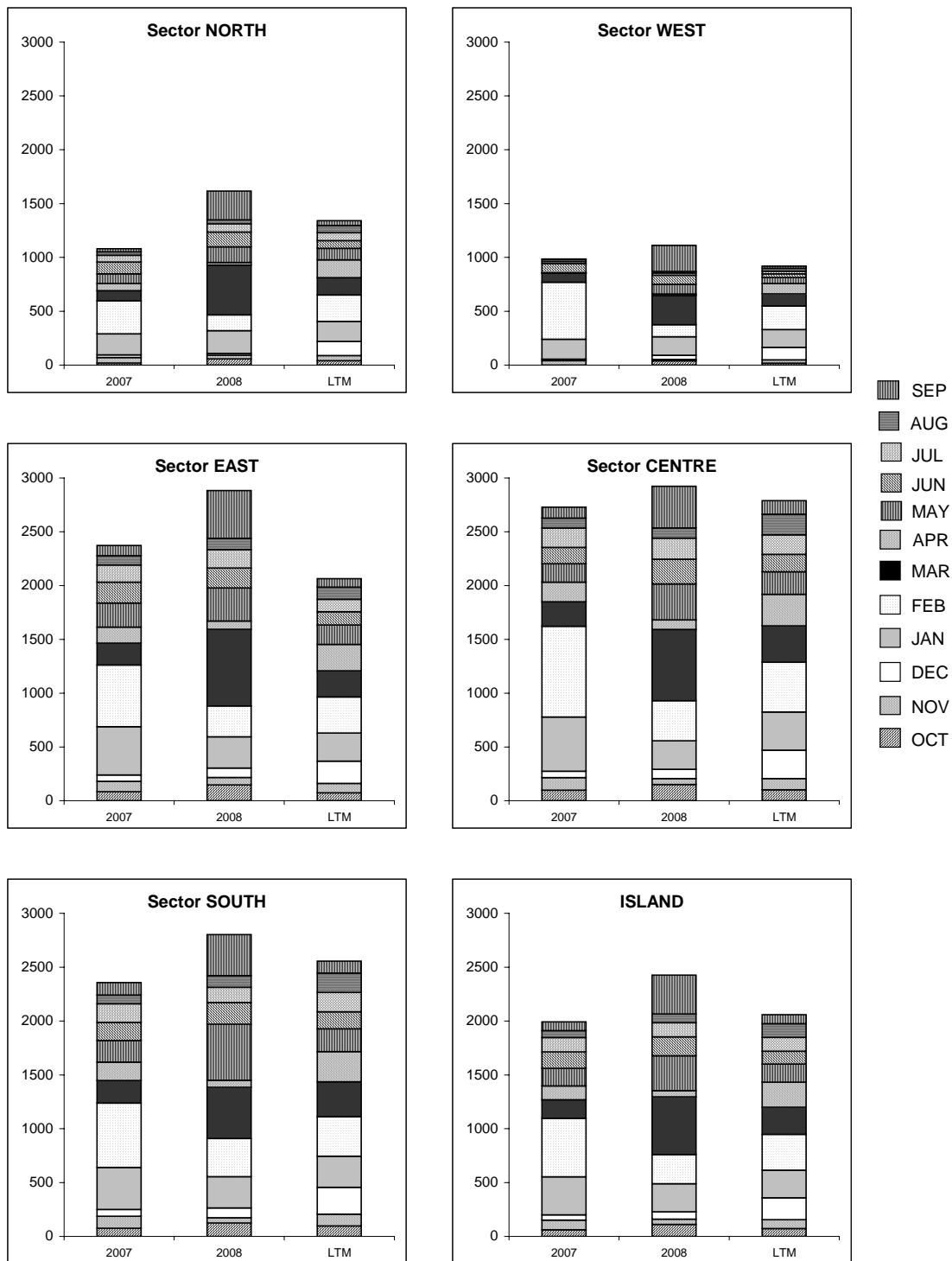
**Table 1b Cumulative rainfall (mm) from October 2007 to September 2008 for crop 2008 compared to that of crop 2007 and the long term mean (LTM)**

	North	East	South	West	Centre	Island
<b>2007</b>	1080 (81)	2372 (115)	2356 (92)	986 (107)	2730 (98)	1992 (97)
<b>2008</b>	<b>1616</b> (121)	<b>2883</b> (140)	<b>2802</b> (110)	<b>1112</b> (121)	<b>2923</b> (105)	<b>2425</b> (118)
<b>LTM</b>	1341	2065	2557	918	2790	2060

\* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

**Figure 1** Monthly rainfall (mm) for the period October 2007 to September 2008 of the 2008 crop compared to the same period for the long term mean (LTM) and the 2007 crop



## 1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of September 2008 on MSIRI agro-meteorological stations are given below.

The mean maximum temperature was above normal at Réduit, Belle Rive and Union Park by 0.8 °C , 1.4 °C and 1.2 °C respectively whereas at Pamplémousses it was below normal by 0.2 °C. Above normal mean minimum temperature was recorded at Pamplémousses (1.5 °C), Réduit (1.4 °C), Belle Rive (1.9 °C) and Union Park (1.9 °C). The resulting mean amplitude was below normal at all stations, namely by 1.7 °C, 0.6 °C, 0.5 °C and 0.7 °C at Pamplémousses, Réduit, Belle Rive and Union Park respectively. Lower temperature amplitudes and particularly above normal minimum temperatures are detrimental to ripening.

**Table 2 Maximum and minimum air temperature recorded on MSIRI agro-meteorological stations during September 2008**

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
<b>Pamplémousses</b>	<b>26.7</b> (26.9) *	<b>18.1</b> (16.6)	<b>8.6</b> (10.3)
<b>Réduit</b>	<b>24.1</b> (23.3)	<b>17.1</b> (15.7)	<b>7.0</b> (7.6)
<b>Belle Rive</b>	<b>24.1</b> (22.7)	<b>16.1</b> (14.2)	<b>8.0</b> (8.5)
<b>Union Park</b>	<b>23.4</b> (22.2)	<b>17.2</b> (15.3)	<b>6.2</b> (6.9)

\* 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 September 2008 were below normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 90 at Pamplémousses, 98 at Réduit, 97 at Belle Rive and 85 at Union Park. Lack of solar radiation also does not favour ripening.

**Table 3 Sunshine duration recorded on MSIRI agro-meteorological stations during September 2008**

Station	Sep 2008	Normal	% of Normal
<b>Pamplémousses</b>	203	224	90
<b>Réduit</b>	215	219	98
<b>Belle Rive</b>	191	196	97
<b>Union Park</b>	128	150	85

## 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 last year and with those of the reference year 2001.

The *richesse* at end-September 2008 was 14.7% in the North, 15.1% in the East, 14.3% in the South, 15.2% in the West and 14.1% in the Centre compared to 16.0%, 15.3%, 14.8%, 15.2% and 14.4% respectively for the corresponding month in 2007. In the West, *richesse* was similar to that of the corresponding period in 2007, whereas in the other sectors it was lower, the difference being 1.3° in the North, 0.2° in the East, 0.5° in the South and 0.3° in the Centre. Compared with the corresponding period in 2001, the reference crop, *richesse* at the end of September 2008 was lagging behind in all sectors, by 0.9° in the North, East and Centre, 2.1° in the South and 0.5° in the West.

**Table 4a Average Pol % Cane (*richesse*) as at end September 2008**

Sectors	M 703/89	M 695/69	R 575	R 573	M 387/85	M 1246/84	M 1400/86	M 3035/66	M 1176/77	R 579	R 570
North						14.9	15.1		14.7	13.6	14.7
East							15.2	15.8	15.6	14.5	14.7
South				15.4			14.3	14.1	15.6	13.7	13.5
West		15.2	15.4		14.9		14.7		15.6	16.2	13.7
Centre	13.3	14.3			15.3		14.7	14.4		14.0	12.6

**Table 4b Comparison of Pol % Cane (*richesse*) at the end of August and September 2001, 2007 and 2008**

Sectors	AUGUST			SEPTEMBER		
	2001	2007	2008	2001	2007	2008
North	16.1	14.6	13.7	15.6	16.0	14.7
East	14.7	14.3	14.8	16.0	15.3	15.1
South	15.2	14.1	14.3	16.4	14.8	14.3
West	15.3	14.5	14.9	15.7	15.2	15.2
Centre	15.3	13.7	13.8	15.0	14.4	14.1
Island	15.1	14.3	14.3	16.0	15.2	14.7

During the month of September, *richesse* for the present crop has increased by 1.0° in the North and 0.3° in sectors East, West and Centre. In the South, no increase in sucrose content was recorded during the present month. For the corresponding period last year, the increases were 1.4° in the North, 1.0° in the East and 0.7° in the South, West and Centre.

Island-wise, the *richesse* of 14.7% recorded at the end of September 2008 was lower than that of the corresponding period in 2007 and 2001 by 0.5° and 1.3°, respectively. Compared to end-August 2008, sucrose content for the island had increased by 0.4°, which was below the gain of 0.9° recorded for the same period in 2001 and 2007.

### 3. CROP 2008

As at 27 September 2008, about 52% (18 065 ha) of miller-planters' land had been harvested compared with 59% (20 944 ha) at the corresponding period last year. Sector-wise and again for miller-planters only, harvest reached 44% in the North, 55% in both the East and South, 45% in the West and 49% in the Centre. An analysis of cane and sugar productivity based on harvest statistics for miller-planters is given below. However, it should be noted that following centralization of milling activities and the transfer of canes from one factory area to another, the comparisons made are not strictly comparable with those of 2007 except for the 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. In the case of the North sector, part of the cane is being channeled to FUEL.

#### 3.1 Cane productivity (Table 5)

Cane productivity for the island as at 27 September 2008 amounted to 79.8 TCH compared to 72.2 TCH in 2007. Sector-wise, to-date the best cane productivity has been recorded in the West with 88.9 TCH, followed by the South (83.6 TCH), the Centre (81.6 TCH), the East (76.7 TCH) and the North (68.6 TCH). Cane productivity to-date had been higher in all sectors compared with the corresponding period in 2007, with an advantage of 8.0 TCH in the North, 10.0 TCH in the East, 3.6 TCH in the South, 6.6 TCH in the West and 10.9 TCH in the Centre.

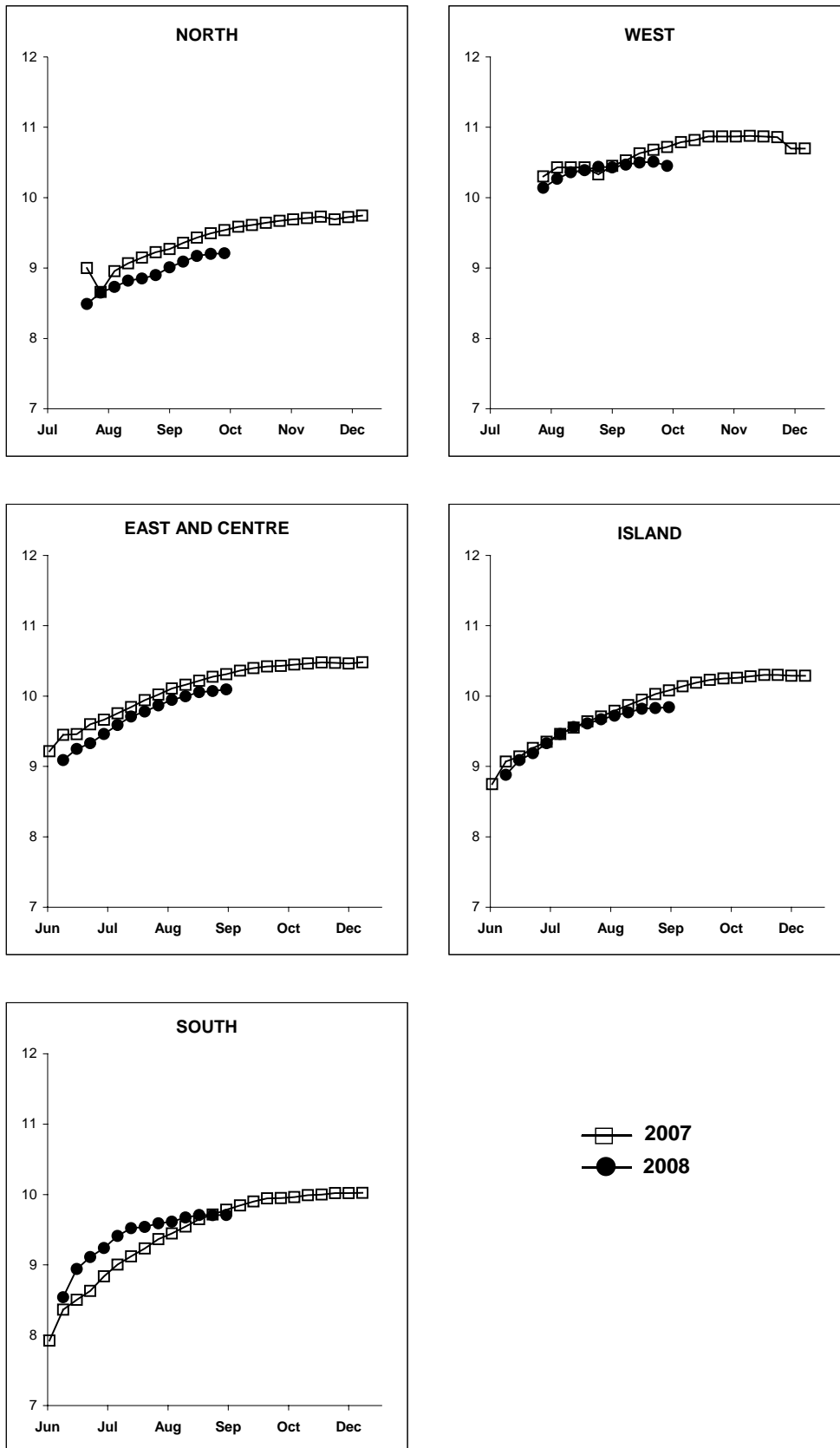
**Table 5 Cane productivity (TCH) as at end August and September for the 2007 and 2008 crops**

Sectors	End August		End September	
	2007	2008	2007	2008
North	58.9	67.8	60.6	68.6
East	67.7	76.1	66.7	76.7
South	81.3	83.9	80.0	83.6
West	84.7	86.7	82.3	88.9
Centre	70.6	80.1	70.7	81.6
<b>Island</b>	<b>72.5</b>	<b>79.3</b>	<b>72.2</b>	<b>79.8</b>

#### 3.2 Extraction (Table 6 and Figure 2)

The recorded island extraction rate of 9.84% was lower than that of the corresponding period in 2007 (10.08%). Sector-wise, extraction rates recorded until 27 September 2008 were 10.45% in the West followed by 10.09% in the East/Centre, 9.71% in the South and 9.21% in the North. Compared with the corresponding period last year, extraction rate up to 27 September 2008 was inferior by 0.33° in the North, 0.22° in the East/Centre, 0.08° in the South and 0.27° in the West.

**Figure 2 Evolution of extraction rate (%) for the 2007 and 2008 crops**



**Table 6 Extraction rate (%) as at end August and September for the 2007 and 2008 crops**

Sectors	End August		End September	
	2007	2008	2007	2008
North	9.23	8.90	9.54	9.21
East /Centre	10.02	9.86	10.31	10.09
South	9.37	9.60	9.79	9.71
West	10.33	10.44	10.72	10.45
<b>Island</b>	<b>9.71</b>	<b>9.67</b>	<b>10.08</b>	<b>9.84</b>

Since end August, 0.17° increase in extraction rate has been recorded for the island this year, an increment below that (0.37°) observed over the same period last year.

### 3.3 Sugar productivity (Table 7)

Island-wise, the recorded sugar productivity of 7.85 TSH was higher than at the corresponding period in 2007 (7.28 TSH) by 0.57 tonne. Sector-wise sugar productivity was 6.32 TSH in the North, 8.86 TSH in the East/Centre, 8.12 TSH in the South and 9.29 TSH in the West. Sugar productivity was higher than that of the corresponding period last year in all sectors with an increment of 0.54 TSH in the North, 1.90 TSH in the East/Centre, 0.29 TSH in the South, 0.47 TSH in the West and 0.57 TSH in the Centre.

**Table 7 Sugar productivity (TSH) as at end August and September for the 2007 and 2008 crops**

Sectors	End August		End September	
	2007	2008	2007	2008
North	5.44	6.03	5.78	6.32
East /Centre	6.85	7.60	6.96	8.86
South	7.62	8.05	7.83	8.12
West	8.75	9.05	8.82	9.29
<b>Island</b>	<b>7.04</b>	<b>7.67</b>	<b>7.28</b>	<b>7.85</b>

## 4. CROP ESTIMATE

The better cane yield recorded since the start of the crop season has been maintained up to now. However, extraction rates have not followed the expected trend and by end-September were lagging by 0.24° on last year's performance at the same period. The excessive rainfall of September 2008, while being detrimental to further ripening, will be beneficial in preventing cane desiccation during the usually dry months expected till the end of harvest.

Thus sugar productivity is expected to maintain itself at a higher level than last year with national production close to the crop estimates made.