

# MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Ref A 1/2008

5 November 2008

## SUGAR CANE CROP 2008

Status: End October 2008

### 1. CLIMATE

#### 1.1 Rainfall (Table 1)

Rainfall recorded during the month of October 2008 over the cane areas of the island amounted to 67 mm, which represented 93% of the long term mean (72 mm) of the month. Rainfall was below the long-term mean in sectors North with 29 mm, South with 89 mm, West with 8 mm and Centre with 88 mm. In the East, it was 11% above the long-term mean with 82 mm.

October is known to be a dry month. In the North and West, crop water requirements have not been met except for areas benefiting from sufficient irrigation.

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

|                  |             | North               | East                | South               | West                 | Centre              | Island              |
|------------------|-------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|
| <i>August</i>    | <b>2007</b> | 33<br>(49)          | 84<br>(74)          | 80<br>(44)          | 17<br>(65)           | 94<br>(49)          | 66<br>(52)          |
|                  | <b>2008</b> | <b>37</b><br>(54)   | <b>104</b><br>(91)  | <b>109</b><br>(61)  | <b>13</b><br>(50)    | <b>95</b><br>(49)   | <b>82</b><br>(65)   |
|                  | <b>LTM</b>  | 68                  | 114                 | 180                 | 26                   | 192                 | 127                 |
| <i>September</i> | <b>2007</b> | 27<br>(61)          | 95<br>(120)         | 116<br>(104)        | 6<br>(30)            | 102<br>(81)         | 80<br>(96)          |
|                  | <b>2008</b> | <b>268</b><br>(609) | <b>444</b><br>(562) | <b>381</b><br>(340) | <b>243</b><br>(1215) | <b>386</b><br>(306) | <b>361</b><br>(436) |
|                  | <b>LTM</b>  | 44                  | 79                  | 112                 | 20                   | 126                 | 83                  |
| <i>October</i>   | <b>2007</b> | 57<br>(139)         | 148<br>(200)        | 124<br>(129)        | 39<br>(217)          | 151<br>(148)        | 111<br>(153)        |
|                  | <b>2008</b> | <b>29</b><br>(71)   | <b>82</b><br>(111)  | <b>89</b><br>(93)   | <b>8</b><br>(44)     | <b>88</b><br>(86)   | <b>67</b><br>(93)   |
|                  | <b>LTM</b>  | 41                  | 74                  | 96                  | 18                   | 102                 | 72                  |

\* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

## 1.2 Temperature (Table 2)

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

The mean maximum temperature was above normal at Réduit, Belle Rive and Union Park by 0.2 °C, 1.3 °C and 1.1 °C respectively whereas at Pamplémousses it was below normal by 0.4 °C. Above normal mean minimum temperature was recorded at Pamplémousses (1.0 °C), Réduit (0.7 °C), Belle Rive (1.4 °C) and Union Park (1.5 °C). The resulting mean amplitude was below normal at all stations, namely by 1.4 °C, 0.5 °C, 0.1 °C and 0.4 °C at Pamplémousses, Réduit, Belle Rive and Union Park respectively. Lower temperature amplitudes and particularly above normal minimum temperatures were detrimental to ripening.

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

| Station              | Maximum (°C)            | Minimum (°C)          | Amplitude (°C)       |
|----------------------|-------------------------|-----------------------|----------------------|
| <b>Pamplémousses</b> | <b>28.0</b><br>(28.4) * | <b>18.7</b><br>(17.7) | <b>9.3</b><br>(10.7) |
| <b>Réduit</b>        | <b>25.1</b><br>(24.9)   | <b>17.6</b><br>(16.9) | <b>7.5</b><br>(8.0)  |
| <b>Belle Rive</b>    | <b>25.1</b><br>(23.8)   | <b>16.7</b><br>(15.3) | <b>8.4</b><br>(8.5)  |
| <b>Union Park</b>    | <b>24.7</b><br>(23.6)   | <b>17.9</b><br>(16.4) | <b>6.8</b><br>(7.2)  |

\* 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 October 2008 were above normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 107 at Pamplémousses, 112 at Réduit, 109 at Belle Rive and 111 at Union Park.

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

| Station              | Oct 2008 | Normal | % of Normal |
|----------------------|----------|--------|-------------|
| <b>Pamplémousses</b> | 271      | 254    | 107         |
| <b>Réduit</b>        | 276      | 247    | 112         |
| <b>Belle Rive</b>    | 229      | 211    | 109         |
| <b>Union Park</b>    | 201      | 182    | 111         |

## 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 in each sector. The results are compared with those of last year as data for the reference year 2001 do not exist.

The *richesse* at end-October 2008 was 14.4% in the North, 15.4% in the East, 14.5% in the South, 15.6% in the West and 14.2% in the Centre compared to 16.6%, 15.8%, 14.8%, 15.3% and 14.7% respectively for the corresponding period in 2007. In the West, *richesse* was higher than that of the corresponding period in 2007 by 0.3° whereas in the other sectors it was lower, the difference being 2.2° in the North, 0.4° in the East, 0.3° in the South and 0.5° in the Centre.

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

| Sectors | 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   |          |       |       |          | 15.3      | 14.4      |           | 14.5      | 14.2  | 14.2  |
| East    |          |       |       |          |           |           | 16.2      | 15.7      | 15.1  | 14.7  |
| South   |          |       | 16.2  |          |           |           |           |           | 14.5  | 13.9  |
| West    | 15.8     | 15.8  |       | 15.3     |           | 15.9      |           | 15.7      | 15.5  | 14.5  |
| Centre  |          |       |       | 14.3     |           | 14.1      | 15.6      |           | 13.5  | 13.4  |

**Table 4b. Comparison of Pol % Cane (*richesse*) at the end of September and October 2007 and 2008**

| Sectors | September |      | October |      |
|---------|-----------|------|---------|------|
|         | 2007      | 2008 | 2007    | 2008 |
| North   | 16.0      | 14.7 | 16.6    | 14.4 |
| East    | 15.3      | 15.1 | 15.8    | 15.4 |
| South   | 14.8      | 14.3 | 14.8    | 14.5 |
| West    | 15.2      | 15.2 | 15.3    | 15.6 |
| Centre  | 14.4      | 14.1 | 14.7    | 14.2 |
| Island  | 15.2      | 14.7 | 15.5    | 14.7 |

During the month of October, *richesse* for the present crop increased by 0.3° in the East, 0.2° in the South, 0.4° in the West and 0.1° in the Centre whereas in the North a decrease of 0.3° was recorded. For the corresponding period last year, the increases were 0.6° in the North, 0.5° in the East, 0.1° in the West and 0.3° in the Centre whereas in the South no increase was recorded during that period.

Island-wise, the *richesse* of 14.7% recorded at the end of October 2008 was lower than that of the corresponding period in 2007 by 0.8°. Compared to end-September 2008, there was no gain in sucrose content for the island compared to the gain of 0.3° recorded for the same period in 2007.

### 3. CROP 2008

As at 25 October 2008, about 67% (23 288 ha) of miller-planters' land had been harvested compared with 77% (27 521 ha) at the corresponding period last year. Sector-wise and again for miller-planters only, harvest reached 58% in the North, 70% in the East, 72% in the South, 57% in the West and 63% 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 cane 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 sent to FUEL.

#### 3.1 Cane productivity (Table 5)

Cane productivity for the island as at 25 October 2008 amounted to 79.8 TCH compared to 71.9 TCH in 2007. Sector-wise to-date, the best cane productivity has been recorded in the West with 89.1 TCH, followed by the South (83.3 TCH), the Centre (79.5 TCH), the East (77.0 TCH) and the North (70.0 TCH). Cane productivity to-date is higher in all sectors when compared to the corresponding period in 2007, the advantage being 9.6 TCH in the North, 10.2 TCH in the East, 3.9 TCH in the South, 6.8 TCH in the West and 10.7 TCH in the Centre.

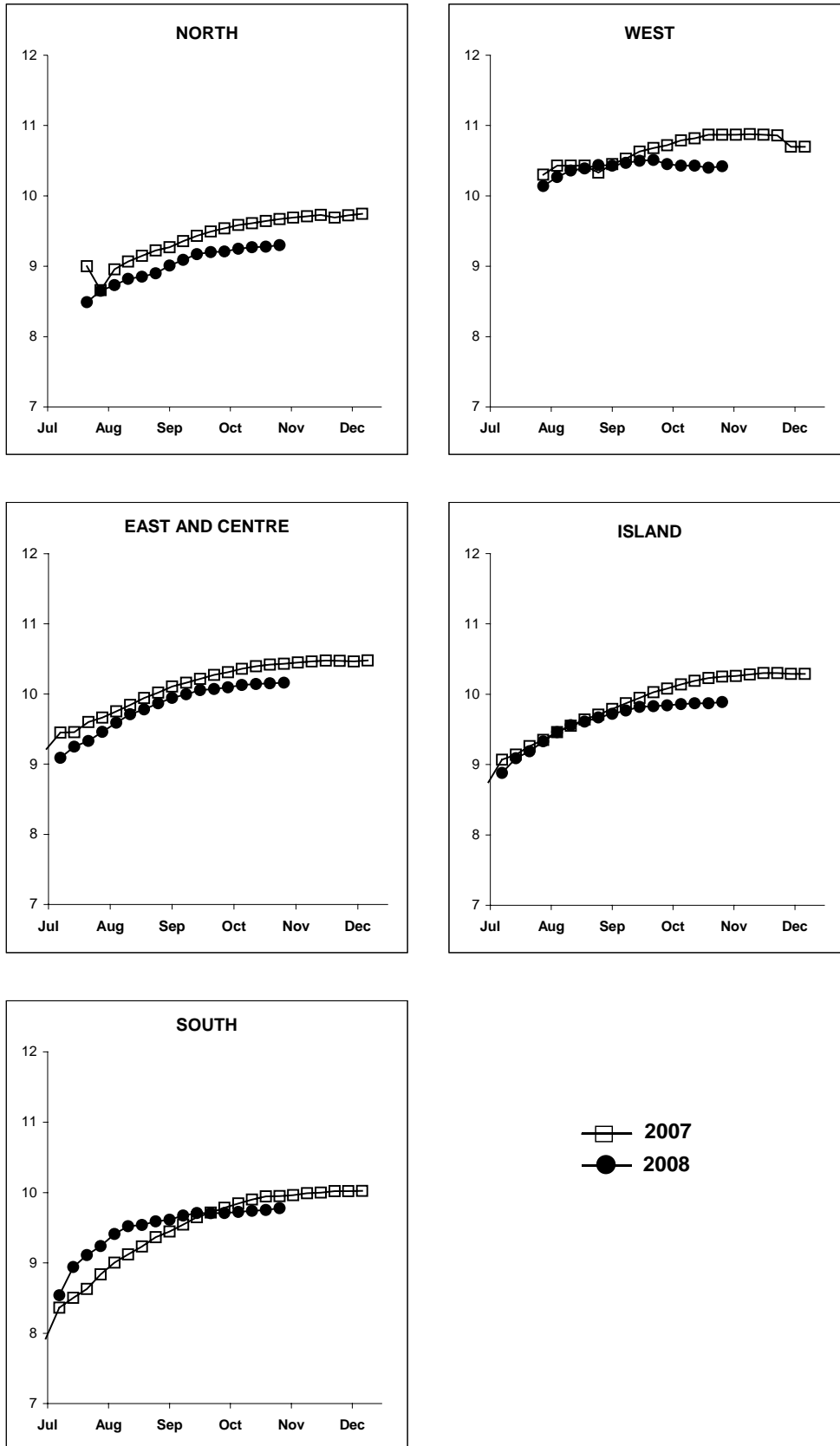
**Table 5. Cane productivity (TCH) as at end September and October for the 2007 and 2008 crops**

| Sectors       | End September |             | End October |             |
|---------------|---------------|-------------|-------------|-------------|
|               | 2007          | 2008        | 2007        | 2008        |
| North         | 60.6          | 68.6        | 60.4        | 70.0        |
| East          | 66.7          | 76.7        | 66.8        | 77.0        |
| South         | 80.0          | 83.6        | 79.4        | 83.3        |
| West          | 82.3          | 88.9        | 82.3        | 89.1        |
| Centre        | 70.7          | 81.6        | 68.8        | 79.5        |
| <b>Island</b> | <b>72.2</b>   | <b>79.8</b> | <b>71.9</b> | <b>79.8</b> |

#### 3.2 Extraction (Table 6 and Figure 1)

The recorded island extraction rate of 9.89% was lower than that of the corresponding period in 2007 (10.25%). Sector-wise, extraction rates recorded until 25 October 2008 were 10.42% in the West followed by 10.16% in the East/Centre, 9.78% in the South and 9.30% in the North. Compared with the corresponding period last year, extraction rate till 25 October 2008 was inferior by 0.37° in the North, 0.27° in the East/Centre, 0.17° in the South and 0.45° in the West.

**Figure 1. Evolution of extraction rate (%) for the 2007 and 2008 crops**



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

| Sectors       | End September |             | End October  |             |
|---------------|---------------|-------------|--------------|-------------|
|               | 2007          | 2008        | 2007         | 2008        |
| North         | 9.54          | 9.21        | 9.67         | 9.30        |
| East /Centre  | 10.31         | 10.09       | 10.43        | 10.16       |
| South         | 9.79          | 9.71        | 9.95         | 9.78        |
| West          | 10.72         | 10.45       | 10.87        | 10.42       |
| <b>Island</b> | <b>10.08</b>  | <b>9.84</b> | <b>10.25</b> | <b>9.89</b> |

Since end September, a slight increase of 0.05° in extraction rate has been recorded for the island this year compared to an increment of 0.17° over the same period last year.

### 3.3 Sugar productivity (Table 7)

Island-wise, the recorded sugar productivity of 7.89 TSH for this year was higher than at the corresponding period in 2007 (7.37 TSH) by 0.52 tonne. Sector-wise sugar productivity was 6.51 TSH in the North, 7.88 TSH in the East/Centre, 8.15 TSH in the South and 9.28 TSH in the West. Sugar productivity was higher than that of the corresponding period last year in all sectors with an increment of 0.67 TSH in the North, 0.87 TSH in the East/Centre, 0.25 TSH in the South and 0.33 TSH in the West.

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

| Sectors       | End September |             | End October |             |
|---------------|---------------|-------------|-------------|-------------|
|               | 2007          | 2008        | 2007        | 2008        |
| North         | 5.78          | 6.32        | 5.84        | 6.51        |
| East /Centre  | 6.96          | 8.86        | 7.01        | 7.88        |
| South         | 7.83          | 8.12        | 7.90        | 8.15        |
| West          | 8.82          | 9.29        | 8.95        | 9.28        |
| <b>Island</b> | <b>7.28</b>   | <b>7.85</b> | <b>7.37</b> | <b>7.89</b> |

## 4. CROP ESTIMATE

Weather during October has been relatively dry with above normal minimum and maximum temperatures in most sectors. Such weather together with the residual soil moisture still present as a result of the high rainfall received during September, has not been conducive to ripening but prevented cane desiccation in the rainfed crops. This is reflected in the cane productivity that has maintained itself during the past month. No significant change in cane productivity is expected until the end of the crop season and sugar production is still in line with the last estimates of 460 000 tonnes.