

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2015

13 October 2015

### SUGAR CANE CROP 2015

#### Status: End August 2015

## 1. CLIMATE

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

Rainfall recorded in August over the sugar cane areas was above normal with an island average of 154 mm, representing 142% of the long-term mean (LTM) of 108 mm. Sector-wise, rainfall for the month of August exceeded the long-term mean by 93% (100 mm) in the East, 37% (56 mm) in the South, 77% (17 mm) in the West and 26% (43 mm) in the Centre. In the North it was lagging behind the LTM by 25% (15 mm).

Cumulative rainfall for the period October 2014 to August 2015 amounted to 2533 mm for the island. This figure is 33% higher than the island long-term mean of 1905 mm. During the same period, a total of 1455 mm was recorded in the North, 3145 mm in the East, 2947 mm in the South, 1202 mm in the West and 3274 mm in the Centre. Compared to their respective long-term mean, cumulative rainfall represented 116% in the North, 156% in the East, 126% in the South, 134% in the West and 125% in the Centre.

**Table 1a. Rainfall (mm) for the month of August for crops 2014, 2015 and the long term mean (LTM)**

|             | North              | East                | South               | West               | Centre              | Island              |
|-------------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|
| <b>2014</b> | 57<br>(94)         | 173<br>(161)        | 121<br>(80)         | 51<br>(232)        | 177<br>(107)        | 119<br>(110)        |
| <b>2015</b> | <b>46</b><br>(75)* | <b>207</b><br>(193) | <b>207</b><br>(137) | <b>39</b><br>(177) | <b>208</b><br>(126) | <b>154</b><br>(142) |
| <b>LTM</b>  | 61                 | 107                 | 151                 | 22                 | 165                 | 108                 |

\* figures in brackets are % of LTM (1981-2010)

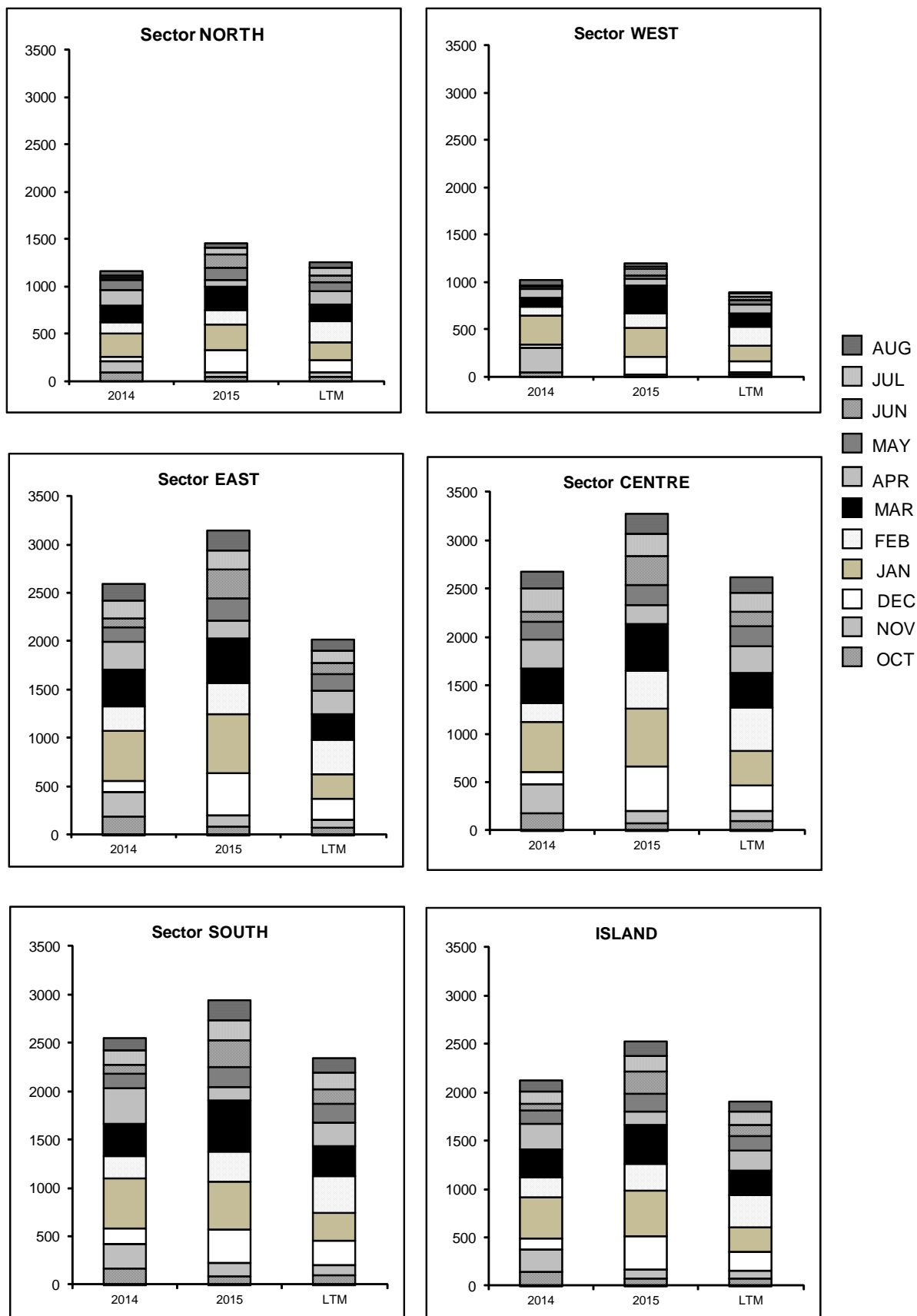
**Table 1b. Cumulative rainfall (mm) from October 2014 to August 2015 for crop 2015 compared to that of crop 2014 and the long term mean (LTM)**

|             | North                 | East                 | South                | West                 | Centre               | Island               |
|-------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>2014</b> | 1170<br>(93)          | 2600<br>(129)        | 2550<br>(109)        | 1018<br>(113)        | 2681<br>(102)        | 2125<br>(112)        |
| <b>2015</b> | <b>1455</b><br>(116)* | <b>3145</b><br>(156) | <b>2947</b><br>(126) | <b>1202</b><br>(134) | <b>3274</b><br>(125) | <b>2533</b><br>(133) |
| <b>LTM</b>  | 1257                  | 2016                 | 2346                 | 898                  | 2622                 | 1905                 |

\* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2014 to August 2015 for the 2015 crop compared to the corresponding period of the 2014 crop and to the long term mean (LTM).**



### 1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of August 2015 on MSIRI agro-meteorological stations are given below.

**Table 2. Maximum and minimum airtemperatures recorded on MSIRI agro-meteorological stations in August2015**

| Stations             | Maximum (°C) |       | Minimum (°C) |       | Amplitude (°C) |       |
|----------------------|--------------|-------|--------------|-------|----------------|-------|
|                      | Aug2015      | DevN* | Aug 2015     | DevN* | Aug2015        | DevN* |
| <b>Pamplemousses</b> | 26.7         | +1.0  | 17.1         | +0.6  | 9.6            | +0.4  |
| <b>Réduit</b>        | 23.8         | +1.3  | 15.5         | +0.2  | 8.3            | +1.1  |
| <b>Belle Rive</b>    | 22.6         | +0.6  | 14.6         | +0.6  | 8.0            | 0.0   |
| <b>Union Park</b>    | 22.7         | +1.2  | 16.4         | +1.1  | 6.3            | +0.1  |

\* Deviation from the Normal (1981-2010)

The mean maximum temperature during August2015 was above normal at all stations. Similarly, the meanmonthly minimum temperatureexceeded the normal at all stations ranging from 0.2°C at Réduit to 1.1°C at Union Park.The resulting mean amplitude was comparable to the normal at Belle Rive and Union Park whereas at the other two stations itexceeded the normal.

### 1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that the sky during August 2015 was more overcast than normal at all stations. Recorded bright sunshine as a percentage of the normal amounted to 95 at Pamplemousses, 90 at Réduit, 85 at Belle Rive and 88 at Union Park. Below normal solar radiation is detrimental to photosynthesis and hence to growth and sucrose accumulation.

**Table 3. Sunshine duration (h) recorded on MSIRI agro-meteorological stations in August 2015**

| Station              | Aug2015 | Normal* | % of Normal |
|----------------------|---------|---------|-------------|
| <b>Pamplemousses</b> | 234     | 247     | 95          |
| <b>Réduit</b>        | 198     | 220     | 90          |
| <b>Belle Rive</b>    | 171     | 202     | 85          |
| <b>Union Park</b>    | 126     | 143     | 88          |

\* Normal (1981-2010)

## 2. SUCROSE ACCUMULATION (Tables 4a and 4b)

During the last week of August 2015, cane samples from miller-planters' land in all factory areas and representing the main cultivated varieties were analyzed for sucrose content. The average Pol % cane (*richesse*) was computed on the basis of area under cultivation for each variety, in the different factory areas of each sector. The results were compared with those of 2013 and 2014.

**Table 4a. Average Pol % cane (richesse) at end-August 2015.**

| Sectors | R 573 | R 575 | M 387/85 | M 1246/84 | M 2256/88 | M 2593/92 | M 1400/86 | M 1176/77 | M 1989/99 | R 579 | M 1672/90 | R 570 |
|---------|-------|-------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|-----------|-------|
| North   | 14.4  |       |          | 13.0      | 13.5      | 12.5      | 13.7      |           |           | 14.1  | 12.3      | 12.7  |
| East    | 14.8  |       |          | 13.6      |           | 14.2      | 12.1      | 14.8      |           | 13.0  |           | 12.8  |
| South   | 14.0  |       |          |           |           | 14.2      | 15.3      |           |           | 13.0  | 12.3      | 12.8  |
| West    | 16.0  | 15.5  |          |           |           | 15.0      | 13.9      | 15.1      | 14.3      | 15.3  |           | 14.1  |
| Centre  |       |       | 13.6     |           |           |           | 13.9      | 13.6      |           | 12.3  |           |       |

**Table 4b. Comparison of Pol % cane (richesse) at the end of July and August 2013, 2014 and 2015.**

| Sectors | JULY |      |      | AUGUST |      |      |
|---------|------|------|------|--------|------|------|
|         | 2013 | 2014 | 2015 | 2013   | 2014 | 2015 |
| North   | 15.2 | 15.0 | 12.2 | 15.0   | 17.2 | 13.1 |
| East    | 14.0 | 14.4 | 12.2 | 14.6   | 16.9 | 13.4 |
| South   | 14.9 | 14.5 | 12.7 | 15.1   | 16.1 | 13.6 |
| West    | 13.7 | 12.7 | 13.4 | 15.2   | 16.5 | 14.9 |
| Centre  | 13.9 | 13.4 | 13.0 | 14.5   | 15.3 | 13.2 |
| Island  | 14.5 | 14.3 | 12.5 | 14.9   | 16.5 | 13.5 |

At end-August 2015, *richesse* stood at 13.1% in the North, 13.4% in the East, 13.6% in the South, 14.9% in the West and 13.2% in the Centre. Compared to the corresponding period in 2014, *richesse* was inferior by 4.1° in the North, 3.5° in the East, 2.5° in the South, 1.6° in the West and 2.1° in the Centre. Sucrose content at the end of August for the present crop was also lower than that of the corresponding period in 2013 in all sectors.

During the month of August 2015, *richesse* has improved in all sectors, with an increase of 0.9° in both the North and South, 1.2° in the East, 1.5° in the West and 0.2° in the Centre. For the corresponding period last year, the increments recorded were 2.2° in the North, 2.5° in the East, 1.6° in the South, 3.8° in the West and 1.9° in the Centre. On average for the island, the increase in *richesse* in August was 1.0° in 2015 compared to 2.2° in 2014 and 0.4° in 2013 for the same period.

Island-wise, the *richesse* of 13.5% at the end of August 2015 was inferior to the 14.9% and 16.5% recorded in 2013 and 2014, respectively.

### 3. CROP 2015

As at 29 August 2015, 11642ha representing about 33% of miller-planters' land had been harvested compared to 12164ha (37%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 27% in the North, 40% in the East, 38% in the South, 5% in the West and 37% in the Centre. An analysis of cane productivity based on the harvest statistics for miller-planters in all sectors follows. On account of the centralization of milling activities and since all the canes from the Centre are crushed at factories in the East, harvest statistics relative to extraction rate and sugar productivity have been combined for these two sectors.

#### 3.1 Cane productivity (Table 5a)

The cane productivity of 85.9 TCH for the island as at 29 August 2015 was higher than the 83.7 TCH recorded in 2014 by 2.2 TCH (3%). Sector-wise, the best cane productivity to-date was recorded in the West with 89.1 TCH, followed by the South (88.0 TCH), the East (87.0 TCH), the North (81.8 TCH) and the Centre (78.3 TCH). Compared to the same period in 2014, cane productivity recorded to-date was comparable in the West but higher in the other sectors by 1.3 TCH in the North, 4.8 TCH in the East, 1.2 TCH in the South and 2.5 TCH in the Centre.

**Table 5a. Cane productivity (TCH) as at end July and August for the 2014 and 2015 crops**

| Sectors       | End July    |             | End August  |             |
|---------------|-------------|-------------|-------------|-------------|
|               | 2014        | 2015        | 2014        | 2015        |
| North         | 81.9        | 81.3        | 80.5        | 81.8        |
| East          | 83.3        | 88.9        | 82.2        | 87.0        |
| South         | 85.8        | 87.2        | 86.8        | 88.0        |
| West          | 90.4        | 76.2        | 88.5        | 89.1        |
| Centre        | 76.0        | 79.4        | 75.8        | 78.3        |
| <b>Island</b> | <b>84.0</b> | <b>86.5</b> | <b>83.7</b> | <b>85.9</b> |

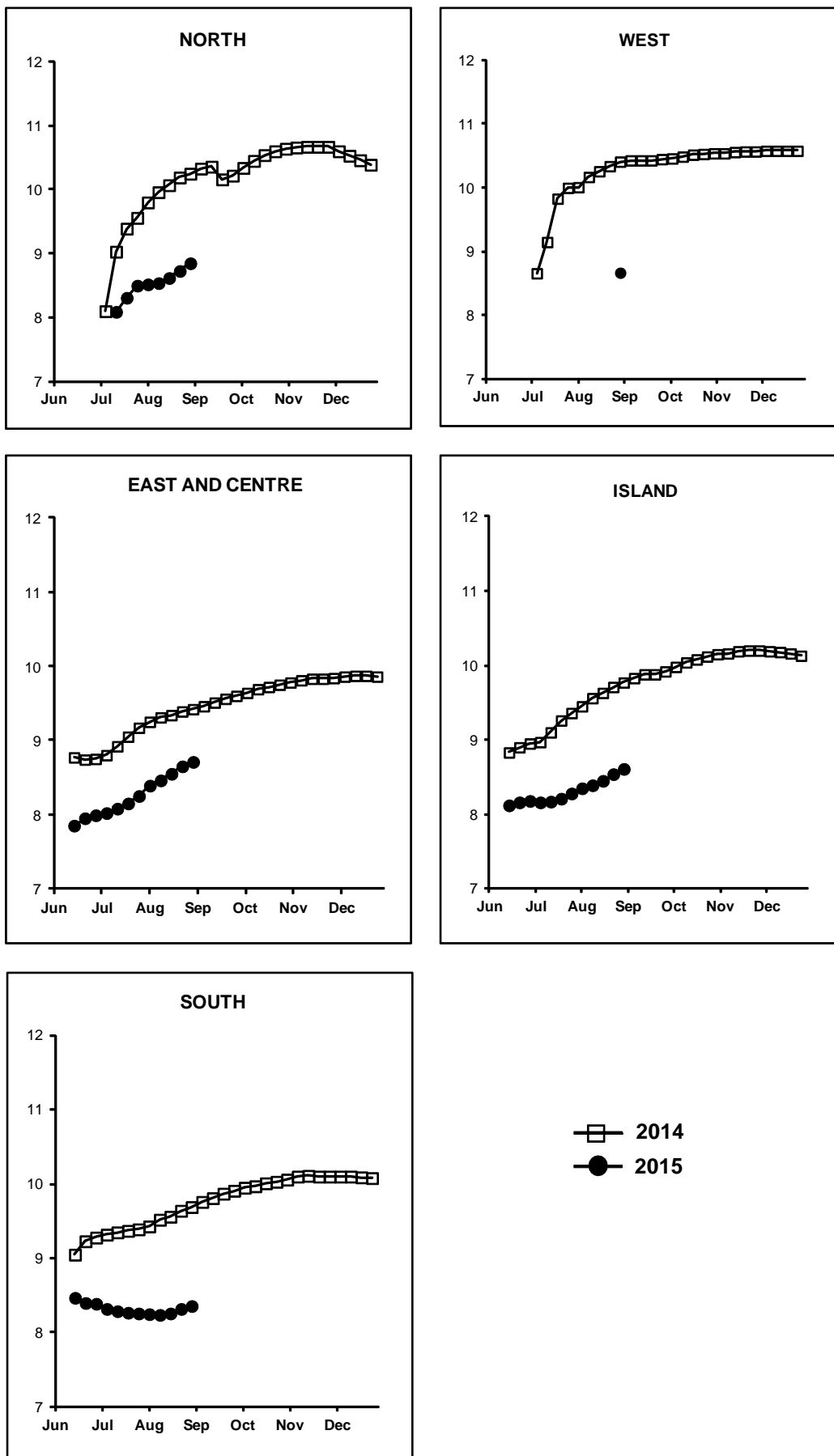
#### 3.2 Extraction (Table 5b, Figure 2)

The recorded island extraction rate of 8.61% was lower than that of the corresponding period in 2014 (9.77%) by 1.16°. Sector-wise, the extraction rate recorded was 8.85% in the North, 8.71% in the East-Centre, 8.36% in the South and 8.57% in the West. Compared to the corresponding period last year, extraction rate to-date was lower by 1.40° in the North, 0.71° in the East-Centre, 1.33° in the South and 1.84° in the West.

**Table 5b Cumulative extraction rate (%) as at end July and August for the 2014 and 2015 crops**

| Sectors       | End July    |             | End August  |             |
|---------------|-------------|-------------|-------------|-------------|
|               | 2014        | 2015        | 2014        | 2015        |
| North         | 9.80        | 8.52        | 10.25       | 8.85        |
| East /Centre  | 9.25        | 8.39        | 9.42        | 8.71        |
| South         | 9.43        | 8.25        | 9.69        | 8.36        |
| West          | 10.01       | -           | 10.41       | 8.57        |
| <b>Island</b> | <b>9.45</b> | <b>8.35</b> | <b>9.77</b> | <b>8.61</b> |

**Figure 2. Evolution of extraction rate (%) for the 2014 and 2015 crops**



### 3.3 Sugar productivity (Table 5c)

Island-wise, the recorded sugar productivity of 7.40 TSH was lower by 0.78 tonne (10%) than that at the corresponding period in 2014 (8.18 TSH). Sector-wise sugar productivity was 7.24 TSH in the North, 7.45 TSH in the East-Centre, 7.36 TSH in the South and 7.64 TSH in the West. Sugar productivity compared to that at the corresponding period in 2014 was comparable in sector East/Centre but lagged behind in the other sectors by 1.01 TSH in the North, 1.05 TSH in the South and 1.57 TSH in the West.

**Table 5c Sugar productivity (TSH) as at end July and August for the 2014 and 2015 crops**

| Sectors       | End July    |             | End August  |             |
|---------------|-------------|-------------|-------------|-------------|
|               | 2014        | 2015        | 2014        | 2015        |
| North         | 8.03        | 6.93        | 8.25        | 7.24        |
| East / Centre | 7.57        | 7.34        | 7.62        | 7.45        |
| South         | 8.09        | 7.19        | 8.41        | 7.36        |
| West          | 9.05        | -           | 9.21        | 7.64        |
| <b>Island</b> | <b>7.94</b> | <b>7.22</b> | <b>8.18</b> | <b>7.40</b> |

## 4. 2015 CROP PRODUCTIVITY

Weather experienced during August 2015 has not been conducive for optimum sucrose accumulation and ripening in all sectors except the North and West. Rainfall exceeded the crop water requirements in sectors East, South and Centre coupled with lower solar radiation in some instances have had a detrimental effect of too much soil moisture resulting in a low increase in sucrose content. Sugar productivity remained below that of last year as a result of unfavourable weather that prevailed during the ripening phase. With only about one third of the crop already harvested, the current trend is towards low sugar productivity and hence the 2015 crop is expected to be below that of 2014.