# MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2012 8 October 2012

## SUGAR CANE CROP 2012

## Status: End September 2012

### 1. CLIMATE

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

Rainfall recorded during the month of September over the sugar cane areas of the island was below normal with an average of 59 mm which represented 73% of the long-term mean. Rainfall was below the long-term mean in all sectors with 18 mm in the North, 76 mm in the East, 80 mm in the South, 3 mm in the West and 88 mm in the Centre. These amounts represented 41%, 96%, 71%, 15% and 70% of the respective long-term means.

Cumulative rainfall from October 2011 to September 2012 amounted to 1820 mm for the island. This is 9% lower than the island long-term mean of 2008 mm. During the same period 996 mm were recorded in the North, 2368 mm in the East, 2084 mm in the South, 649 mm in the West and 2292 mm in the Centre. Compared to their respective long-term mean, cumulative rainfall represented 75%, 116%, 83%, 72% and 83% of the respective long-term means.

**Table 1a Rainfall (mm) of September for crops 2011, 2012 and the long-term mean (LTM)**

| | North | East | South | West | Centre | Island |
|---|---|---|---|---|---|---|
| **Crop 2011** | 13 *(30)* | 74 *(94)* | 58 *(52)* | 3 *(15)* | 71 *(56)* | 49 *(60)* |
| **Crop 2012** | **18** *(41)* | **76** *(96)* | **80** *(71)* | **3** *(15)* | **88** *(70)* | **59** *(73)* |
| **LTM** | 44 | 79 | 112 | 20 | 126 | 81 |

* figures in brackets are % of LTM

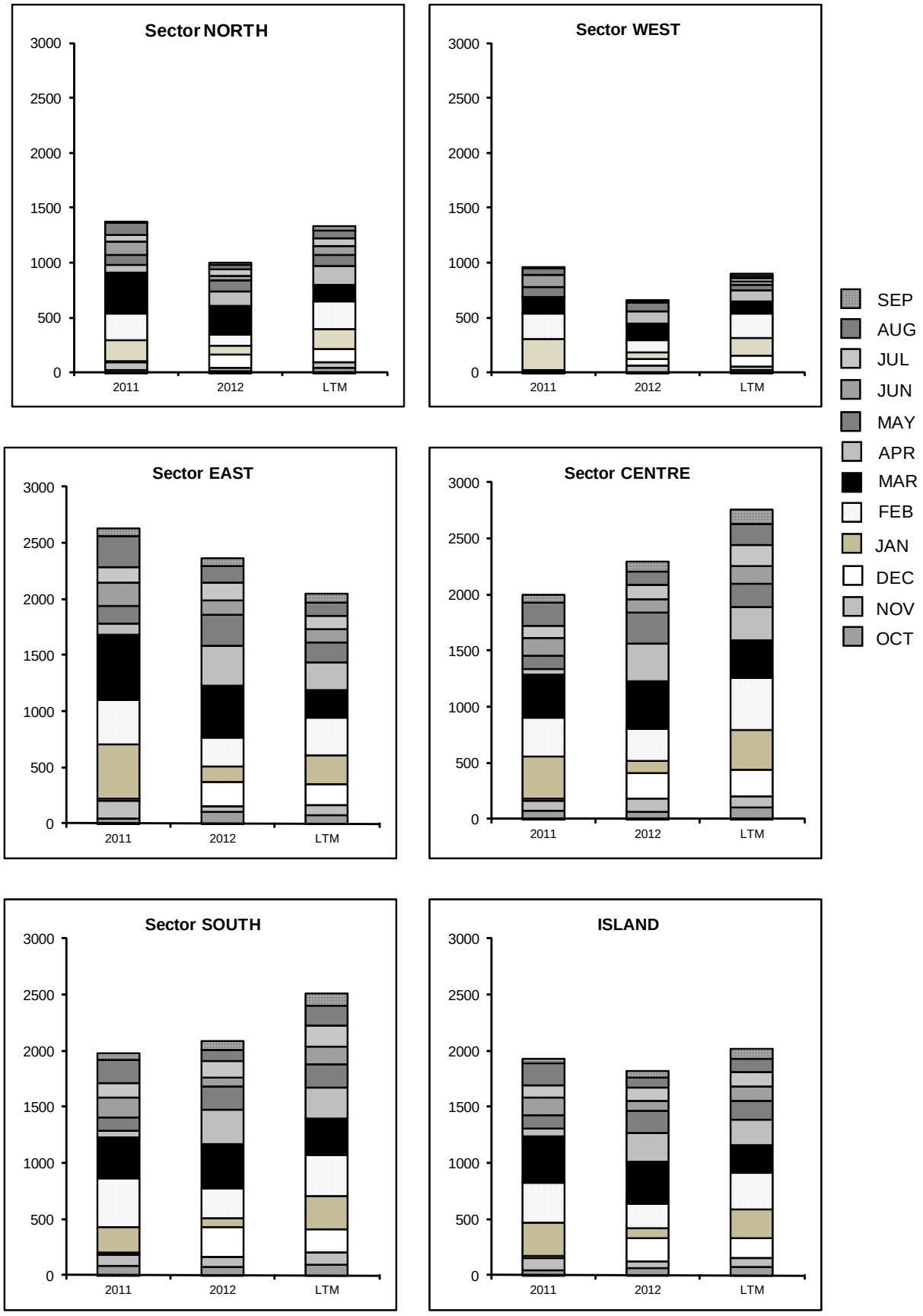
**Table 1b Cumulative rainfall (mm) from October 2011 to September 2012 for crop 2012 compared to that of crop 2011 and the long-term mean (LTM)**

| | North | East | South | West | Centre | Island |
|---|---|---|---|---|---|---|
| **Crop 2011** | 1375 *(103)* | 2632 *(129)* | 1981 *(79)* | 946 *(105)* | 1999 *(72)* | 1936 *(96)* |
| **Crop 2012** | **996** *(75)* | **2368** *(116)* | **2084** *(83)* | **649** *(72)* | **2292** *(83)* | **1820** *(91)* |
| **LTM** | 1330 | 2044 | 2513 | 901 | 2757 | 2008 |

* figures in brackets are % of LTM

***[Source : raw provisional data from Meteorological Services]***

**Figure 1 Monthly rainfall (mm) for the period Oct 2011 to Sep 2012 for the 2012 crop compared to the corresponding period of the 2011 crop and to the long term mean (LTM).**



### *1.2 Temperature (Table 2)*

Data on maximum and minimum temperatures recorded during the month of September 2012 on MSIRI agro-meteorological stations are given below.

The mean monthly maximum temperature was similar at Belle Rive but higher than the normal by 0.2 $^{o}$C at Réduit, 0.6 $^{o}$C at Pamplemousses and 1.0 $^{o}$C at Union Park. The mean monthly minimum temperature was comparable at Réduit but exceeded the normal by 0.9 $^{o}$C at Pamplemousses, 0.5 $^{o}$C at Union Park and 0.6 $^{o}$C at Belle Rive. The resulting mean amplitude was close to normal at Réduit, higher than normal at Union Park but was lower at the other two stations.

**Table 2 Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in September 2012**

| Station | Maximum ($^{o}$C) | Minimum ($^{o}$C) | Amplitude ($^{o}$C) |
|---|---|---|---|
| **Pamplemousses** | **27.4**<br>*(26.8)* * | **17.7**<br>*(16.8)* | **9.7**<br>*(10.0)* |
| **Réduit** | **23.7**<br>*(23.5)* | **15.9**<br>*(15.8)* | **7.8**<br>*(7.7)* |
| **Belle Rive** | **22.8**<br>*(22.8)* | **15.1**<br>*(14.5)* | **7.7**<br>*(8.3)* |
| **Union Park** | **23.4**<br>*(22.4)* | **16.3**<br>*(15.8)* | **7.1**<br>*(6.6)* |

* figures in brackets are the Normal (1981-2010)

### *1.3 Sunshine (Table 3)*

Total bright sunshine duration for the month of September 2012 at the MSIRI agro-meteorological stations was above normal at Pamplemousses and Réduit whereas at the other two stations it was below normal. Recorded bright sunshine as a percentage of the normal amounted to 91 at Belle Rive, 89 at Union Park and 104 at both Pamplemousses and Réduit.

**Table 3 Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in September 2012**

| Station | Sep 2012 | Normal | % of Normal |
|---|---|---|---|
| **Pamplemousses** | 242 | 233 | 104 |
| **Réduit** | 226 | 217 | 104 |
| **Belle Rive** | 179 | 197 | 91 |
| **Union Park** | 133 | 150 | 89 |

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

Sucrose content was analyzed from cane samples taken from miller-planters' land in all factory areas and covering the main cultivated varieties. 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-September 2012.**

| Sectors | R 573 | M 695/69 | R 575 | M 387/85 | M 1246/84 | M 2593/92 | M 1400/86 | M 1176/77 | R 579 | M 1394/86 | M 3035/66 | M 1672/90 | R 570 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **North** | | | | | 15.1 | 15.2 | 16.0 | 15.5 | 15.5 | | | 16.5 | 14.7 |
| **East** | | | | | 15.7 | | 15.1 | 16.2 | 14.3 | | 15.4 | | 15.5 |
| **South** | | 15.8 | | | | 15.3 | 15.1 | | 15.1 | 14.2 | | | 15.1 |
| **West** | | | 16.1 | | | 16.3 | 15.6 | 16.4 | 15.9 | | | | 13.1 |
| **Centre** | 14.4 | | | 14.5 | | | | 14.0 | 14.2 | | 15.0 | | 13.8 |

The *richesse* at end-September 2012 was 15.5% in the North, 15.1% in both the East and South, 15.9% in the West and 14.3% in the Centre. Sucrose content to-date, when compared to September 2011, was higher by 0.4° in the North, 0.5° in the East, 0.3° in the South, 0.5° in the West and 0.6° in the Centre. Compared to the corresponding period in 2010, sucrose content at the end of September for the present crop was higher in the North by 0.6°, 0.4°in the East and 0.5° in the Centre. It was comparable in the West but lower by 0.4 ° in the South.

**Table 4b Comparison of Pol % Cane (*richesse*) at the end of August and September 2010, 2011 and 2012.**

| Sectors | AUGUST | | | SEPTEMBER | | |
|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| **North** | 14.8 | 13.3 | 14.2 | 14.9 | 15.1 | 15.5 |
| **East** | 14.5 | 13.5 | 14.6 | 14.7 | 14.6 | 15.1 |
| **South** | 14.9 | 13.6 | 14.5 | 15.5 | 14.8 | 15.1 |
| **West** | 15.7 | 14.4 | 15.3 | 16.0 | 15.4 | 15.9 |
| **Centre** | 13.8 | 14.1 | 14.4 | 13.8 | 13.7 | 14.3 |
| **Island** | **14.7** | **13.6** | **14.5** | **15.0** | **14.8** | **15.2** |

During the period end-August 2012 to end-September 2012, *richesse* improved in all sectors except in the Centre sector. The highest increment of 1.3° was recorded in the North followed by 0.6 ° in the South and West, and 0.5° in the East. During the corresponding period last year, the increments were 1.8° in the North, 1.1° in the East, 1.2° in the South and 1.0° in the West whereas in the Centre a decrease of 0.4° was noted. On average for the island, the increase in *richesse* in 2012 of 0.7° was lower than the 1.2° obtained in 2011 but exceeded the 0.3° obtained in 2010 for the same period.

Island-wise and for corresponding periods, the *richesse* of 15.2% recorded at the end of September 2012 was higher than that of 2011 (14.8%) by 0.4° and also that of 2010 (15.0%) by 0.2°.

## 3. CROP PRODUCTIVITY 2012

As at 29 September 2012, 17 984 ha, representing 52.0% of miller-planters' land had been harvested compared to 19 658 ha (56.0%) at the same period last year. Sector-wise and for miller-planters only, the harvested area reached 44.3% in the North, 57.4% in the East, 50.2% in the South, 56.5% in the West and 54.6% in the Centre. An analysis of cane productivity based on the harvest statistics for miller-planters in all sectors follows. Since all the canes from the Centre are crushed at FUEL due to the centralization of milling activities, the harvest statistics

relative to extraction rate and sugar productivity have been combined for sectors East and Centre.

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

Cane productivity for the island as at 29 September 2012 amounted to 78.0 TCH and was lower than the 78.5 TCH recorded at the same period in 2011 by 0.5 TCH (0.6%). Sector-wise, the West sector recorded the best cane productivity to-date with 80.1 TCH, followed by the East (78.1 TCH), the South (77.7 TCH), the Centre (77.7 TCH) and the North (77.1 TCH). Compared to the same period in 2011, cane productivity recorded to-date was higher by 4.4 TCH in the East and 7.8 TCH in the Centre. In sectors North, South and West, cane productivity at end-September 2012 lagged behind that of last year by 6.5 TCH, 3.0 TCH and 8.7 TCH respectively.

**Table 5a Cane productivity (TCH) as at end August and September for the 2011 and 2012 crops**

| | End August | | End September | |
|---|---|---|---|---|
| **Sectors** | **2011** | **2012** | **2011** | **2012** |
| North | 81.9 | 78.6 | 83.6 | 77.1 |
| East | 72.9 | 76.7 | 73.7 | 78.1 |
| South | 78.9 | 77.8 | 80.7 | 77.7 |
| West | 91.1 | 80.6 | 88.8 | 80.1 |
| Centre | 71.3 | 79.0 | 69.9 | 77.7 |
| **Island** | **77.3** | **77.9** | **78.5** | **78.0** |

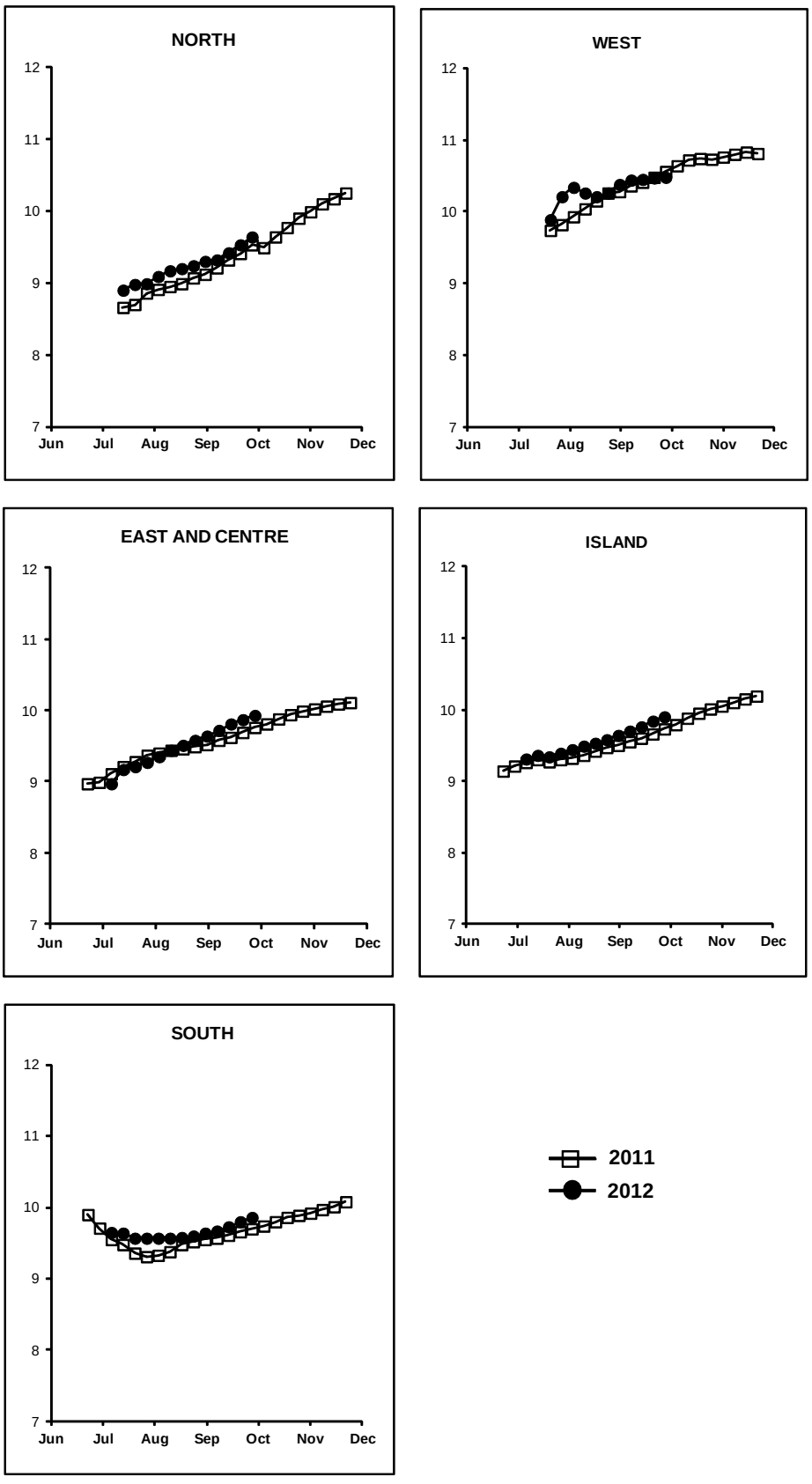
### *3.2 Extraction (Table 5b, Figure 2)*

The recorded island extraction rate of 9.90% exceeded that of the corresponding period in 2011 (9.73%) by 0.17$^{o}$. Sector-wise, extraction rate cumulated to 9.64% in the North, 9.93% in the East-Centre, 9.86% in the South and 10.48% in the West. Compared to the corresponding period last year, extraction rate to-date was higher by 0.11$^{o}$ in the North, 0.17$^{o}$ in the East-Centre and 0.16 $^{o}$ in the South whereas in the West it lagged behind by 0.08$^{o}$.

**Table 5b Cumulative extraction rate (%) as at end August and September for the 2011 and 2012 crops**

| | End August | | End September | |
|---|---|---|---|---|
| **Sectors** | **2011** | **2012** | **2011** | **2012** |
| North | 9.12 | 9.30 | 9.53 | 9.64 |
| East /Centre | 9.52 | 9.64 | 9.76 | 9.93 |
| South | 9.55 | 9.64 | 9.70 | 9.86 |
| West | 10.28 | 10.38 | 10.56 | 10.48 |
| **Island** | **9.50** | **9.64** | **9.73** | **9.90** |

**Figure 2 Evolution of extraction rate (%) for the 2011 and 2012 crops.**



### *3.3 Sugar productivity (Table 5c)*

Island-wise, the recorded sugar productivity of 7.72 TSH was higher than at the corresponding period in 2011 (7.64 TSH) by 0.08 tonne (1.1%). Sector-wise sugar productivity stood at 7.43 TSH in the North, 7.75 TSH in the East-Centre, 7.66 TSH in the South and 8.39 TSH in the West. Sugar productivity to-date was higher than at the corresponding period in 2011 in the East-Centre only by 0.63 TSH. In the other three sectors sugar productivity at end-September 2012 was lagging behind that of the corresponding period last year by 0.54 TSH in the North, 0.17 TSH in the South and 0.99 TSH in the West.

**Table 5c Sugar productivity (TSH) as at end August and September for the 2011 and 2012 crops**

| | End August | | End September | |
|---|---|---|---|---|
| **Sectors** | **2011** | **2012** | **2011** | **2012** |
| North | 7.47 | 7.31 | 7.97 | 7.43 |
| East / Centre | 6.91 | 7.42 | 7.12 | 7.75 |
| South | 7.53 | 7.50 | 7.83 | 7.66 |
| West | 9.37 | 8.37 | 9.38 | 8.39 |
| **Island** | **7.34** | **7.51** | **7.64** | **7.72** |

## 4. CROP 2012

The month of September was marked by a weather regime generally more favourable to sucrose accumulation rather than to growth on account of the lower rainfall in all sectors. This has led to a better *richesse* during September 2012 compared to the corresponding month of the two previous years. Productivity levels are following the expected trends with an extraction rate over the island at end-September 2012 exceeding that of last year by $0.17^{o}$. On the other hand, cane productivity is lagging behind that of 2011 in sectors North, West and South which on average led to a slight reduction of 0.6% at island level. Thus, sugar productivity is lower in the North, South and West sectors but better in the East/Centre. At island level, the average sugar productivity at the end of September 2012 remained above that of 2011 by 0.08 TSH (1.5%). Based on the fact that more than half of the area has been harvested and given there is no major deviation in weather from the normal, sugar productivity is expected to be comparable to that of last year.