

# MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Ref A 1/2011

7 November 2011

## SUGAR CANE CROP 2011

Status: End October 2011

### 1. CLIMATE`

#### 1.1 Rainfall (Table 1)

Rainfall recorded during the month of October 2011 over the cane areas of the island amounted to 61 mm, which represented 85% of the long term mean (72 mm) of the month. Rainfall recorded in the West sector was negligible. In sectors North, South and Centre, rainfall recorded was below normal with 7 mm, 77 mm and 69 mm respectively and represented 17%, 80% and 68% of their respective long-term mean. In the East, the 103 mm rain was 39% above the long-term mean (74 mm).

**Table 1. Rainfall in mm and as a percentage of the long term mean (LTM) for Aug, Sep and Oct during crops 2010 and 2011**

	Crop	North	East	South	West	Centre	Island
<i>AUGUST</i>	<b>2010</b>	105 (154)	229 (201)	175 (97)	29 (112)	233 (121)	167 (131)
	<b>2011</b>	<b>115</b> (169)	<b>278</b> (244)	<b>208</b> (116)	<b>51</b> (196)	<b>204</b> (106)	<b>192</b> (151)
	<b>LTM</b>	68	114	180	26	192	128
<i>SEPTEMBER</i>	<b>2010</b>	<b>29</b> (66)	<b>77</b> (97)	<b>80</b> (71)	<b>12</b> (60)	<b>97</b> (77)	<b>64</b> (77)
	<b>2011</b>	<b>13</b> (30)	<b>74</b> (94)	<b>58</b> (52)	<b>3</b> (15)	<b>71</b> (56)	<b>49</b> (59)
	<b>LTM</b>	44	79	112	20	126	83
<i>OCTOBER</i>	<b>2010</b>	<b>20</b> (50)	<b>45</b> (61)	<b>80</b> (83)	<b>1</b> (5)	<b>70</b> (68)	<b>49</b> (69)
	<b>2011</b>	<b>7</b> (17)	<b>103</b> (139)	<b>77</b> (80)	<b>1</b> (6)	<b>69</b> (68)	<b>61</b> (85)
	<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 2011 on MSIRI agro-meteorological stations are given below.

The mean monthly maximum temperature was above normal at all stations, the difference ranging from 0.5°C at Réduit to 1.4°C at Union Park. Above normal mean minimum temperature was recorded at Union Park (0.4°C) and Belle Rive (0.2°C). At Pamplémousses it was similar to the normal, whereas at Réduit it was below normal by 0.4°C. The resulting mean amplitude was above normal at all the stations.

**Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in October 2011**

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
<b>Pamplémousses</b>	<b>28.8</b> (28.2) *	<b>18.0</b> (18.0)	<b>10.8</b> (10.2)
<b>Réduit</b>	<b>25.4</b> (24.9)	<b>16.6</b> (17.0)	<b>8.8</b> (7.9)
<b>Belle Rive</b>	<b>24.8</b> (24.0)	<b>15.7</b> (15.5)	<b>9.1</b> (8.5)
<b>Union Park</b>	<b>25.0</b> (23.6)	<b>17.1</b> (16.7)	<b>7.9</b> (6.9)

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

### 1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during October 2011 were well above normal at all the stations. Recorded bright sunshine as a percentage of the normal amounted to 107 at Pamplémousses, 111 at Réduit, 116 at Belle Rive and 111 at Union Park.

**Table 3. Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in October 2011**

Station	October 2011	Normal	% of Normal
<b>Pamplémousses</b>	<b>283</b>	<b>264</b>	<b>107</b>
<b>Réduit</b>	<b>285</b>	<b>256</b>	<b>111</b>
<b>Belle Rive</b>	<b>249</b>	<b>215</b>	<b>116</b>
<b>Union Park</b>	<b>191</b>	<b>172</b>	<b>111</b>

## 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 at end-October 2011. 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 2010 and 2009.

**Table 4a. Average Pol % Cane (richesse) at end-October 2011**

Sectors	R 573	R 575	M 1246/84	M 2593/92	M 1400/86	M 1176/77	R 579	M 1394/86	R 570
North			16.1	15.7	16.5	17.1	14.8		14.7
East					15.8		15.2		16.7
South							15.4	14.9	15.0
West	16.6	16.3			16.7		15.3		16.9
Centre						15.6	15.2		14.6

**Table 4b. Comparison of Pol % Cane (richesse) of September and October 2009, 2010 and 2011**

Sector	SEPTEMBER			OCTOBER		
	2009	2010	2011	2009	2010	2011
North	15.0	14.9	15.1	15.7	16.0	16.0
East	15.4	14.7	14.6	15.9	15.6	15.8
South	14.7	15.5	14.8	15.1	16.5	15.2
West	15.0	16.0	15.4	16.3	15.6	16.3
Centre	14.2	13.8	13.7	14.9	14.7	15.1
Island	<b>14.9</b>	<b>15.0</b>	<b>14.8</b>	<b>15.5</b>	<b>15.9</b>	<b>15.6</b>

The *richesse* at end-October 2011 was 16.0% in the North, 15.8% in the East, 15.2% in the South, 16.3% in the West and 15.1% in the Centre. Compared to the corresponding period in 2010, *richesse* for the present crop was higher in the East, West and Centre by 0.2°, 0.7° and 0.4° respectively. It was similar in the North but lower by 1.3° in the South. In comparison to the same period in 2009, sucrose content at end October 2010 was similar in the West, comparable in sectors East and South but higher by 0.3° in the North and 0.2° in the Centre.

During the month of October, *richesse* for the present crop increased by 0.9° in the North, 1.2° in the East, 0.4° in the South, 0.9° in the West and 1.4° in the Centre. For the corresponding period last year, a decrease of 0.4° was recorded in the West, whereas in the other sectors increases were 1.1° in the North, 0.9° in the East, 1.0° in the South and 0.9° in the Centre.

Island-wise, the *richesse* of 15.6% at the end of October 2011 was lower than the 15.9% for the corresponding period in 2010 but comparable to the 15.5% recorded in 2009.

### 3. CROP 2011

As at 29 October 2011, 25 696 ha (72%) of miller-planters' land had been harvested compared to 26 603 ha (76%) at the same period last year. Sector-wise and for miller-planters only, the harvested area reached 63% in the North, 82% in the East, 66% in the South, 70% in the West and 82% in the Centre. An analysis of cane productivity based on the harvest statistics for miller-planters in all sectors follows. Because of the centralization of milling activities and since all the canes from the Centre are crushed at FUEL, harvest statistics relative to extraction rate and sugar productivity have been combined for these two sectors.

### 3.1 Cane productivity (Table 5a)

Cane productivity for the island amounted to 79.0 TCH as at 29 October 2011 and was lower than the 82.8 TCH recorded at the same period in 2010 by 3.8 TCH (5%). Sector-wise, the highest cane productivity to-date was again recorded in the West with 88.4 TCH, followed by the North and South with 81.0 TCH, the East with 75.7 TCH and the Centre with 70.9 TCH. Compared to the same period in 2010, cane productivity recorded to-date was inferior in all sectors, the difference being 3.7 TCH in the North, 4.1 TCH in the East, 1.8 TCH in the South, 7.6 TCH in the West and 2.3 TCH in the Centre.

**Table 5a. Cane productivity (TCH) as at end September and October for the 2010 and 2011 crops**

Sectors	End September		End October	
	2010	2011	2010	2011
North	89.2	83.6	84.7	81.0
East	79.8	73.7	79.8	75.7
South	84.1	80.7	82.8	81.0
West	95.6	88.8	96.0	88.4
Centre	75.9	69.9	73.2	70.9
<b>Island</b>	<b>84.0</b>	<b>78.5</b>	<b>82.8</b>	<b>79.0</b>

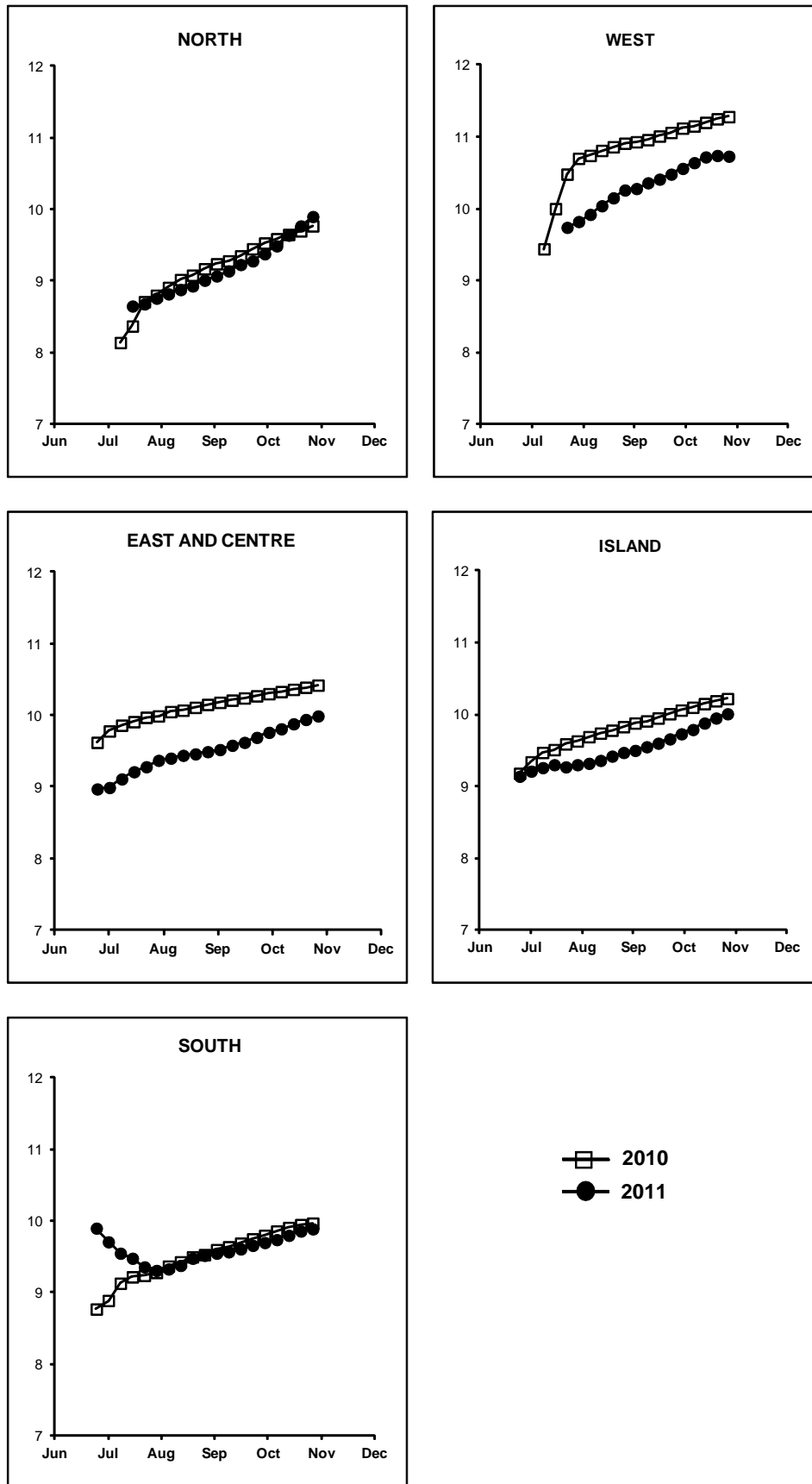
### 3.2 Extraction (Table 5b, Figure 1)

The recorded island extraction rate of 10.01% was lower than at the corresponding period in 2010 (10.22%) by 0.21%. Sector-wise, it was 9.90% in the North, 9.99% in the East-Centre, 9.89% in the South and 10.73% in the West. Extraction rates are thus lagging behind those recorded during end-October of last year in the East-Centre by 0.43%, in the South by 0.08% and in the West by 0.55%. In the North extraction rate is higher than that of last year by 0.13%.

**Table 5b. Cumulative Extraction rate (%) as at end September and October for the 2010 and 2011 crops**

Sectors	End September		End October	
	2010	2011	2010	2011
North	9.53	9.38	9.77	9.90
East /Centre	10.30	9.76	10.42	9.99
South	9.80	9.70	9.97	9.89
West	11.12	10.56	11.28	10.73
<b>Island</b>	<b>10.06</b>	<b>9.73</b>	<b>10.22</b>	<b>10.01</b>

Figure 1. Evolution of extraction rate (%) for the 2010 and 2011 crops



### 3.3 Sugar productivity (Table 5c)

Island-wise, the recorded sugar productivity of 7.91 TSH was lower by 7% (0.55 tonne) than that at the corresponding period in 2010 (8.46 TSH). Sector-wise sugar productivity was 8.02 TSH in the North, 7.46 TSH in the East-Centre, 8.01 TSH in the South and 9.49 TSH in the West. Sugar productivity was lower than that at the corresponding period in 2010 in all sectors, the difference amounting to 0.26 TSH in the North, 0.72 TSH in the East-Centre, 0.25 TSH in the South and 1.34 TSH in the West.

**Table 5c. Sugar productivity (TSH) as at end September and October for the 2010 and 2011 crops**

Sectors	End September		End October	
	2010	2011	2010	2011
North	8.50	7.84	8.28	8.02
East / Centre	8.15	7.12	8.18	7.46
South	8.24	7.83	8.26	8.01
West	10.63	9.38	10.83	9.49
<b>Island</b>	<b>8.45</b>	<b>7.64</b>	<b>8.46</b>	<b>7.91</b>

## 4. CROP PRODUCTIVITY 2011

Weather has been dry, hot and sunny, typical of October, except for the above normal rainfall in the East. Thus no significant change was observed in the crop's performance in all sectors, namely a lower cane productivity and extraction rate compared to 2010. The slight improving trend for cane yield has also maintained itself, the difference being only 5% at the end of October compared to 7% at the end of September. Concurrently extraction rates have been improving steadily with further ripening of the crop. Thus the lag of 12.4% and 10.0% observed in sugar productivity at the end of August and September against those for the same months in 2010 has further decreased to reach 7% at the end of October 2011 compared to 2010 at the same period making the production of 400 000 tonnes sugar for 2011 harvest a very distinct possibility.