

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2013

8 November 2013

### SUGAR CANE CROP 2013

Status: End October 2013

#### 1. CLIMATE

##### 1.1 Rainfall (Table 1)

The island's average rainfall for the month of October 2013 over the sugar cane areas was 149 mm and represented 208% of the long-term mean (72 mm). Above normal rainfall was recorded in all sectors with 91 mm in the North, 192 mm in the East, 170 mm in the South, 45 mm in the West and 182 mm in the Centre. These amounts represented 222%, 259%, 177%, 250% and 178%, of their respective long-term means.

The dry condition experienced in September persisted during the first half of the month of October 2013. But the rainfall received during the second half of the month of October 2013 especially towards the end of the last week of the month has been beneficial to the crop in all the sectors.

**Table 1a Rainfall in mm and as a percentage of the long term mean (LTM) for August, September and October during crops 2012 and 2013**

	Crop	North	East	South	West	Centre	Island
<i>AUGUST</i>	<b>2012</b>	<b>46</b> (68)	<b>148</b> (130)	<b>94</b> (52)	<b>4</b> (15)	<b>116</b> (60)	<b>92</b> (74)
	<b>2013</b>	<b>49</b> (72)	<b>159</b> (139)	<b>139</b> (77)	<b>37</b> (142)	<b>161</b> (84)	<b>118</b> (94)
	<b>LTM</b>	68	114	180	26	192	125
<i>SEPTEMBER</i>	<b>2012</b>	<b>18</b> (41)	<b>76</b> (96)	<b>80</b> (71)	<b>3</b> (15)	<b>88</b> (70)	<b>59</b> (73)
	<b>2013</b>	<b>13</b> (30)	<b>49</b> (62)	<b>50</b> (45)	<b>1</b> (5)	<b>66</b> (52)	<b>39</b> (48)
	<b>LTM</b>	44	79	112	20	126	81
<i>OCTOBER</i>	<b>2012</b>	<b>17</b> (41)	<b>47</b> (64)	<b>71</b> (74)	<b>4</b> (22)	<b>65</b> (64)	<b>46</b> (64)
	<b>2013</b>	<b>91</b> (222)*	<b>192</b> (259)	<b>170</b> (177)	<b>45</b> (250)	<b>182</b> (178)	<b>149</b> (208)
	<b>LTM</b>	41	74	96	18	102	72

\* figures in brackets are % of LTM (1971-00)

[Source : Mauritius Meteorological Services]

## 1.2 Temperature (Table 2)

Data on maximum and minimum temperatures recorded during the month of October 2013 on MSIRI agro-meteorological stations are given below.

The mean monthly maximum temperature was above normal at all stations, the difference ranging from 0.4°C at Belle Rive to 1.9°C at Pamplémousses. The mean minimum temperature was also above normal at all stations. Consequently, the resulting mean amplitude was higher by 0.5°C at Pamplémousses, 1.2°C at Réduit and 0.8°C at Union Park but lower than normal at Union Park by 0.8°C.

**Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in October 2013**

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
<b>Pamplémousses</b>	<b>30.1</b> (28.2) *	<b>19.4</b> (18.0)	<b>10.7</b> (10.2)
<b>Réduit</b>	<b>26.4</b> (24.9)	<b>17.3</b> (17.0)	<b>9.1</b> (7.9)
<b>Belle Rive</b>	<b>24.4</b> (24.0)	<b>16.7</b> (15.5)	<b>7.7</b> (8.5)
<b>Union Park</b>	<b>25.2</b> (23.6)	<b>17.5</b> (16.7)	<b>7.7</b> (6.9)

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

## 1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations during October 2013 showed that sunshine hours were close to normal at all stations except at Belle Rive where it was above normal. Recorded bright sunshine as a % of the normal amounted to 100 at both Pamplémousses and Réduit, 110 at Belle Rive and 101 at Union Park.

**Table 3 Sunshine duration (hr) recorded on MSIRI agro-meteorological stations in October 2013**

Station	October 2013	Normal (1981-2010)	% of Normal
<b>Pamplémousses</b>	265	264	100
<b>Réduit</b>	255	256	100
<b>Belle Rive</b>	236	215	110
<b>Union Park</b>	174	172	101

## 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 during the last week of October 2013. 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 October 2013**

Sectors	R 575	M 1246/84	M 2593/92	M 1400/86	R 579	M 1672/90	R 570
North		16.3	15.2	15.4	15.1	15.8	16.6
East					14.5		
South					16.9	14.4	16.6
West	14.8		14.9	14.4			14.3
Centre					15.0		

The *richesse* at end-October 2013 amounted to 15.6% in the North, 14.5% in the East, 16.8% in the South, 14.6% in the West and 15.0% in the Centre. In comparison to the corresponding period in 2012, sucrose content to-date was higher by 1.5° in the South but lower in the other sectors by 1.3° in the North, 1.8° in the East, 1.9° in the West and 0.8° in the Centre. Sucrose content at the end of October 2013 was lower than in October 2011 in all sectors except in the South.

**Table 4b Comparison of Pol % Cane (*richesse*) at the end of September and October 2011, 2012 and 2013**

Sectors	SEPTEMBER			OCTOBER		
	2011	2012	2013	2011	2012	2013
North	15.1	15.5	15.3	16.0	16.9	15.6
East	14.6	15.1	14.7	15.8	16.3	14.5
South	14.8	15.1	14.9	15.2	15.3	16.8
West	15.4	15.9	15.9	16.3	16.5	14.6
Centre	13.7	14.3	14.3	15.1	15.8	15.0
Island	<b>14.8</b>	<b>15.2</b>	<b>14.9</b>	<b>15.6</b>	<b>16.1</b>	<b>15.6</b>

During the month of October, *richesse* for the present crop has increased by 0.3° in the North, 1.9° in the South and 0.7° in the Centre whereas in the East and West, it has regressed by 0.2 and 1.3°, respectively.

Island-wise, the *richesse* of 15.6% at the end of October 2013 was lower than the 16.1% for the corresponding period in 2012 but similar to that recorded in 2011.

### 3. CROP PRODUCTIVITY 2013

As at 26 October 2013, 24 862 ha, representing 71.8% of miller-planters' land had been harvested compared to 24 006 ha (68.1%) at the same period last year. Sector-wise and for miller-planters only, the harvested area reached 61.3% in the North, 83.8% in the East, 65.2% in the South, 68.5% in the West and 89.6% in the Centre. An analysis of cane productivity based on the harvest statistics for miller-planters in all sectors follows. Owing to the centralization of milling activities and as 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)

The cane productivity of 75.9 TCH for the island as at end of October 2013 was similar to that obtained at the end of September 2013 and lagged behind the 77.9 TCH recorded in 2012 by 2.0 TCH (2.6%). Sector-wise, the West recorded the best cane productivity to-date with 84.7 TCH, followed by the South (78.8 TCH), the East (75.6 TCH), the North (70.7 TCH) and the Centre (67.4 TCH). These figures compared to the same period in 2012 were lower in the North, East and Centre by 4.5 TCH, 2.8 TCH and 9.9 TCH respectively. But in the South and West, cane productivity at end October 2013 was higher than the corresponding period last year by 1.2 TCH and 2.3 TCH.

**Table 5a Cane productivity (TCH) as at end September and October for the 2012 and 2013 crops**

Sectors	End September		End October	
	2012	2013	2012	2013
North	77.1	71.3	75.2	70.7
East	78.1	76.1	78.4	75.6
South	77.7	78.6	77.6	78.8
West	80.1	83.0	82.4	84.7
Centre	77.7	66.8	77.3	67.4
<b>Island</b>	<b>78.0</b>	<b>75.9</b>	<b>77.9</b>	<b>75.9</b>

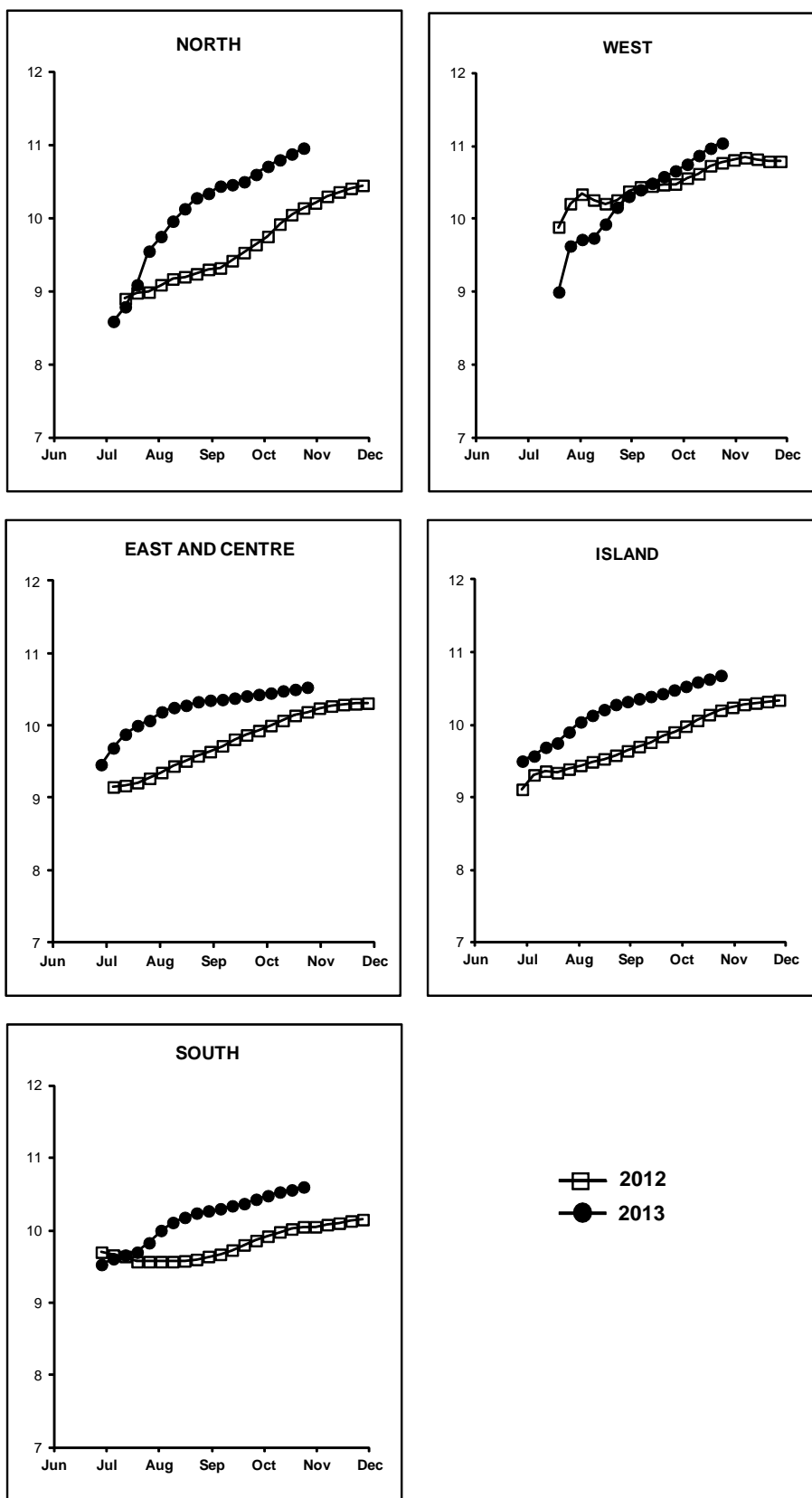
#### 3.2 Extraction (Table 5b, figure 1)

The recorded island extraction rate of 10.68% was higher than that at the corresponding period in 2012 (10.20%) by 0.48%.

**Table 5b Cumulative extraction rate (%) as at end September and October for the 2012 and 2013 crops**

Sectors	End September		End October	
	2012	2013	2012	2013
North	9.64	10.60	10.14	10.96
East /Centre	9.93	10.43	10.19	10.53
South	9.86	10.43	10.05	10.60
West	10.48	10.66	10.77	11.04
<b>Island</b>	<b>9.90</b>	<b>10.48</b>	<b>10.20</b>	<b>10.68</b>

**Figure 1 Evolution of extraction rate (%) for the 2012 and 2013 crops.**



Sector-wise, the cumulated extraction rate reached 10.96% in the North, 10.53% in the East-Centre, 10.60% in the South and 11.04% in the West. These figures exceeded those obtained at the corresponding period last year by 0.82° in the North, 0.34° in the East-Centre, 0.55° in the South and 0.27° in the West.

From end September 2013 to end October 2013, extraction has increased by 0.36° in the North, 0.10° in the East-Centre, 0.17° in the South and 0.38° in the West. The average island increase for the same period for the present crop reached 0.20° compared to 0.30° for 2012.

### 3.3 Sugar productivity (Table 5c)

Island-wise, the sugar productivity of 8.11 TSH was higher than that at the corresponding period in 2012 (7.95 TSH) by 0.16 tonne (2.0%). Sector-wise sugar productivity was 7.75 TSH in the North, 7.80 TSH in the East-Centre, 8.35 TSH in the South and 9.35 TSH in the West. Compared to the corresponding period in 2012, sugar productivity to-date was lower in the East-Centre by 0.17 TSH, but higher in the other sectors by 0.12 TSH in the North, 0.55 TSH in the South and 0.48 TSH in the West.

**Table 5c Sugar productivity (TSH) as at end September and October for the 2012 and 2013 crops**

Sectors	End September		End October	
	2012	2013	2012	2013
North	7.43	7.56	7.63	7.75
East / Centre	7.75	7.75	7.97	7.80
South	7.66	8.20	7.80	8.35
West	8.39	8.85	8.87	9.35
<b>Island</b>	<b>7.72</b>	<b>7.95</b>	<b>7.95</b>	<b>8.11</b>

## 4. CROP 2013

The crop data pertaining to the month of October indicated that the present cane productivity trend is still lagging behind that of last year with a shortfall of 2.0 TCH, compared to a shortfall in cane productivity of 2.1 TCH as at end September 2013, and is attributed to the persisting dry weather conditions that have prevailed particularly during the first half of the month of October 2013. Weather in terms of solar radiation and temperature amplitude was conducive to sucrose accumulation and this is reflected in a better extraction rate throughout the island compared to the same period last year. It is however encouraging that the sugar productivity is better than that of last year with nearly 72% of the area harvested. The production level for 2013 remains dependent on forthcoming weather conditions and a persisting dry hot weather will potentially be detrimental to the standing crops.

Moreover, the rainfall event recorded towards the last week of October should prove particularly conducive to cane development and should thus be beneficial to the start of the 2014 crop.