# MAURITIUS CANE INDUSTRY AUTHORITY

# MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2015 11 April 2016

## SUGAR CANE CROP 2016

## Status: End March 2016

### 1. CLIMATE

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

The island's average rainfall of 163 mm over the sugar cane areas for the month of March 2016 represented 63% of the long-term mean (LTM 258 mm). Sector-wise, rainfall was below the respective LTM of the month with 91 mm in the North, 218 mm in the East, 187 mm in the South, 38 mm in the West and 222 mm in the Centre. These amounts represented 51%, 80%, 60%, 27% and 63% of the LTM of these sectors.

Total rainfall over the island for the period October 2015 to March 2016 amounted to 1195 mm, i.e. 101% of the long-term mean (1179 mm) for the island. During the same period 810 mm were recorded in the North, 1362 mm in the East, 1358 mm in the South, 649 mm in the West and 1594 mm in the Centre and represented 101%, 110%, 97%, 98% and 98% of the respective long-term mean.

Rainfall in sectors North and West and in the lowlands of the East and South did not meet the water requirements of rainfed crops during the month of March.

**Table 1a. Rainfall (mm) for the month of March for crops 2015, 2016 and the long term mean (LTM)**

| | North | East | South | West | Centre | Island |
|---|---|---|---|---|---|---|
| **2015** | 244 *(136)* | 455 *(167)* | 525 *(168)* | 286 *(206)* | 481 *(136)* | 412 *(160)* |
| **2016** | **91** *(51)** | **218** *(80* | **187** *(60)* | **38** *(27)* | **222** *(63)* | **163** *(63)* |
| **LTM** | 179 | 272 | 312 | 139 | 354 | 258 |

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

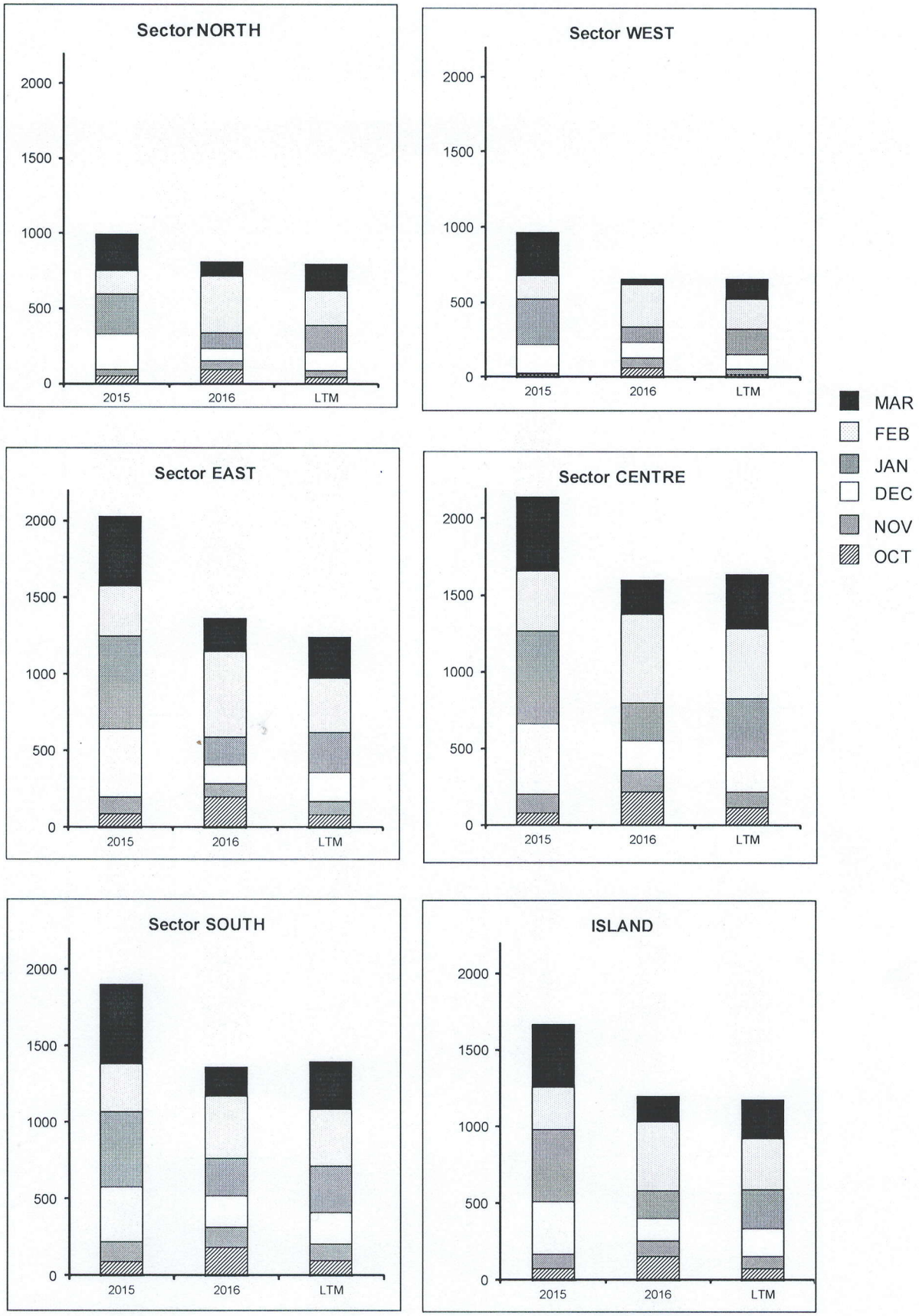
**Table 1b. Cumulative rainfall (mm) from October 2015 to March 2016 for crop 2016 compared to that of crop 2015 and the long term mean (LTM)**

| | North | East | South | West | Centre | Island |
|---|---|---|---|---|---|---|
| **2015** | 1000 *(125)* | 2030 *(163)* | 1902 *(136)* | 959 *(145)* | 2135 *(131)* | 1669 *(142)* |
| **2016** | **810** *(101)** | **1362** *(110)* | **1358** *(97)* | **649** *(98)* | **1594** *(98)* | **1195** *(101)* |
| **LTM** | 802 | 1243 | 1396 | 663 | 1631 | 1179 |

* figures in brackets are % of LTM

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

**Figure 1.Monthly rainfall (mm) for the period October 2015 to March 2016 for the 2016 crop compared to the corresponding period of the 2015 crop and to the long term mean (LTM).**



### *1.2 Air Temperature and Sunshine duration (Table 2)*

Data on air temperature and sunshine duration recorded during the month of March 2016 at the four MSIRI agro-meteorological stations are given below in Table 2.

**Table 2. Air temperature and sunshine duration recorded on MSIRI agro-meteorological stations in March 2016**

| Stations | Maximum Temp (°C) | | Minimum Temp (°C) | | Sunshine hours | |
|---|---|---|---|---|---|---|
| | Mar 2016 | DevN* | Mar 2016 | DevN | Mar 2016 | % Normal |
| Pamplemousses | 31.6 | +1.0 | 23.1 | +1.1 | 227 | 96 |
| Réduit | 29.2 | +1.4 | 21.7 | +0.4 | 192 | 84 |
| Belle Rive | 28.1 | +0.8 | 20.7 | +1.2 | 193 | 101 |
| Union Park | 28.5 | +1.6 | 21.7 | +1.1 | 154 | 91 |

* Deviation from the Normal (1981-2010)

The mean monthly maximum and minimum temperature during March 2016 exceeded their respective normal at all stations. For maximum temperature, the deviation from normal ranged from 0.8°C at Belle Rive to 1.6°C at Union Park whereas for minimum temperature the difference varied from 0.4°C at Réduit to 1.2°C at Belle Rive. The sky in March 2016 was overcast at Réduit and at Union Park whereas at the other two stations sunshine hours recorded were close to normal. Recorded bright sunshine, as a percentage of the normal, amounted to 96% at Pamplemousses, 84% at Réduit, 101% at Belle Rive and 91% at Union Park.

## 2. STALK HEIGHT

Stalk height was assessed during the last week of March 2016 at 52 sites in the five sugar cane sectors of the island. These sites cover the various agro-climatic zones, varieties under cultivation and stage of development of the crop. Data collected are compared with those of the corresponding period in March 2015 and to the mean of the five best cane yielding crops for the period 2006 to 2015 in each sector (referred to as normal).

### *2.1 Stalk elongation (Table 3a)*

Stalk elongation during the month of March 2016 was superior to those of the corresponding period in 2015 in all sectors. It amounted to 55.7 cm in the North, 51.5 cm in the East, 52.3 cm in the South, 57.7 cm in the West and 48.2 cm in the Centre and exceeded those of March 2015 by 12.4 cm, 15.7 cm, 13.6 cm, 16.3 cm and 15.8 cm, in the different sectors, respectively. Stalk elongation achieved in March 2016 was also above the normal for the corresponding period in all sectors; the increase ranging from 1.6 cm in the Centre to 11.4 cm in the West. Island-wise stalk elongation of 53.0 cm was above that of the corresponding period in 2015 by 14.4 cm (37.3%) and that of the normal by 4.2 cm (8.7%).

**Table 3a. Stalk elongation during the month of March**

| | Stalk elongation (cm) during March | | | March 2016 as % of | |
|---|---|---|---|---|---|
| **Sectors** | **2016** | **2015** | **Normal** | **2015** | **Normal** |
| North | 55.7 | 43.3 | 52.2 | 128.6 | 106.8 |
| East | 51.5 | 35.8 | 46.0 | 143.9 | 111.9 |
| South | 52.3 | 38.7 | 50.4 | 135.1 | 103.7 |
| West | 57.7 | 41.4 | 46.3 | 139.4 | 124.6 |
| Centre | 48.2 | 32.4 | 46.6 | 148.8 | 103.5 |
| **Island** | **53.0** | **38.6** | **48.8** | 137.3 | 108.7 |

## *2.2 Cumulative elongation (Table 3b)*

Stalk growth for the period end-December 2015 to end-March 2016 cumulated to 148.5 cm in the North, 144.8 cm in the East, 132.3 cm in the South, 140.6 cm in the West and 120.8 cm in the Centre. These cumulative growths exceeded those of 2015 by 15.0 cm in the North, 26.7 cm in the East, 10.8 cm in the South, 11.9 cm in the West and 19.4 cm in the Centre. For the same period, growth was higher than the normal in all sectors except in the South. Island-wise the cumulative elongation of 139.5 cm was higher than those of the 2015 crop (122.4 cm) by 14.0% and the normal (129.6 cm) by 7.7%.

**Table 3b. Cumulative elongation at end-March.**

| | Cumulative elongation (cm) at end- March | | | End-March 2016 as % of | |
|---|---|---|---|---|---|
| **Sectors** | **2016** | **2015** | **Normal** | **2015** | **Normal** |
| North | 148.5 | 133.5 | 129.4 | 111.2 | 114.8 |
| East | 144.8 | 118.1 | 127.6 | 122.6 | 113.4 |
| South | 132.3 | 121.5 | 135.1 | 108.9 | 97.9 |
| West | 140.6 | 128.7 | 133.3 | 109.2 | 105.5 |
| Centre | 120.8 | 101.4 | 113.6 | 119.1 | 106.3 |
| **Island** | **139.5** | **122.4** | **129.6** | 114.0 | 107.7 |

## *2.3 Total stalk height (Table 3c and Figure 2)*

Total stalk height at end March 2016 stood at 172.6 cm in the North, 189.9 cm in the East, 173.7 cm in the South, 178.7 cm in the West and 166.6 cm in the Centre giving an island average of 178.4 cm. These figures exceeded those of the corresponding period in 2015 by 15.1 cm in the North, 27.5 cm in the East, 2.1 cm in the South, 10.2 cm in the west and 16.2 cm in the Centre. Total stalk height at end-March 2016 was also higher than those of the normal in the North by 17.4 cm, the East by 14.9 cm, the West by 7.0 cm and the Centre by 10.0 cm, whereas in the South it lagged behind by 6.6 cm.

At island level, the total stalk height of 178.4 cm was higher than that of the corresponding period in 2015 by 14.1 cm (8.6%) and the normal by 7.9 cm (4.6 %).

**Table 3c. Stalk height at end-March.**

| | Stalk height (cm) at end-March | | | End-March 2016 as % of | |
|---|---|---|---|---|---|
| **Sectors** | **2016** | **2015** | **Normal** | **2015** | **Normal** |
| North | 172.6 | 157.5 | 155.2 | 109.6 | 111.2 |
| East | 189.9 | 162.4 | 175.0 | 116.9 | 108.5 |
| South | 173.7 | 171.6 | 180.3 | 101.2 | 96.3 |
| West | 178.7 | 168.5 | 171.7 | 106.1 | 104.1 |
| Centre | 166.6 | 150.4 | 156.6 | 110.8 | 106.4 |
| **Island** | **178.4** | **164.3** | **170.5** | 108.6 | 104.6 |

## 3.0 CROP 2016

Weather in March 2016 was characterised by below normal rainfall especially in sectors North and West and in the low-lying areas of the East and South where rainfed fields suffered mild stress during the second half of the month. Air temperature recorded on MSIRI stations during the month was above normal coupled with less favourable solar radiation. In spite of the weather prevailing in March 2016 being average for growth, elongation rate was better than the corresponding period in 2015 and to the normal in all sectors. Based on the current status, with the total cane height at end-March 2016 for the island being nearly 9% above that of 2015 and by 5% to the normal, the 2016 crop is expected be a normal one provided that weather conditions are optimal in the forthcoming months.

**Figure 2. Stalk height at end-March 2016**