

# MAURITIUS CANE INDUSTRY AUTHORITY

## MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2019

11 March 2019

### SUGAR CANE CROP 2019

#### Status: End February 2019

## 1. CLIMATE

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

The island's average rainfall for the month of February 2019 was 234 mm over the sugar cane areas representing a deficit of 34% over the normal (356 mm). In all sectors, rainfall recorded was below the long-term mean (LTM) with 157 mm in the North, 269 mm in the East, 257 mm in the South, 168 mm in the West and 301 mm in the Centre. These amounts represented 64%, 63%, 65%, 77% and 72% of the respective long-term mean of the sector.

Cumulative rainfall for the period October 2018 to February 2019 amounted to 1055 mm, 107% of the long-term mean for the island. During the same period, 701 mm were recorded in the North, 1222 mm in the East, 1234 mm in the South, 575 mm in the West and 1237 mm in the Centre. These values represented 112%, 105%, 108%, 103% and 109% of the respective long-term means.

**Table 1a. Rainfall (mm) for the month of February for crops 2018, 2019 and the long term mean (LTM)**

|             | North               | East               | South              | West               | Centre             | Island             |
|-------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>2018</b> | 162<br>(66)         | 316<br>(74)        | 427<br>(109)       | 287<br>(132)       | 476<br>(113)       | 329<br>(92)        |
| <b>2019</b> | <b>157</b><br>(64)* | <b>269</b><br>(63) | <b>257</b><br>(65) | <b>168</b><br>(77) | <b>301</b><br>(72) | <b>234</b><br>(66) |
| <b>LTM</b>  | 245                 | 426                | 393                | 218                | 420                | 356                |

\* figures in brackets are % of LTM (1981-10)

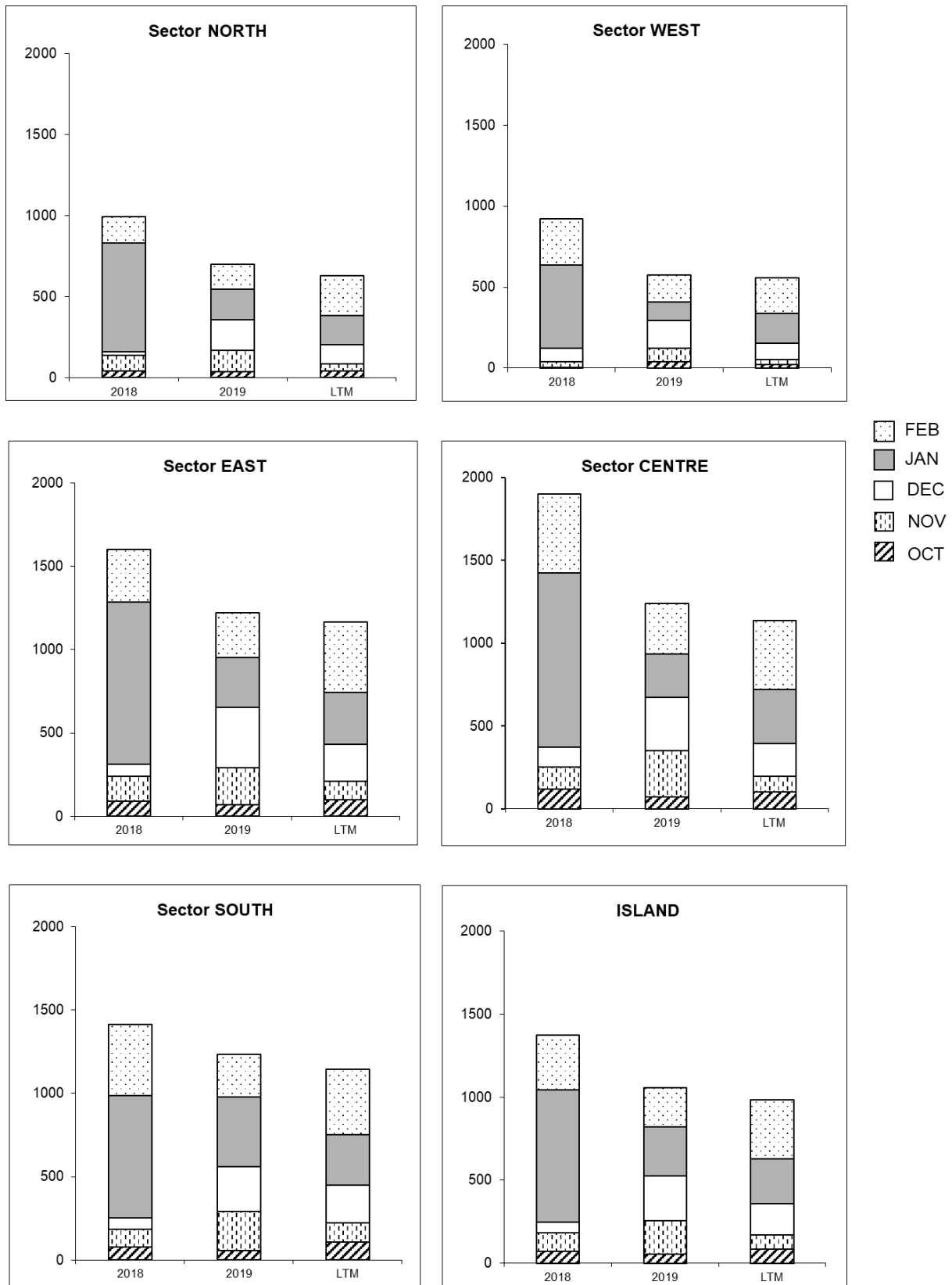
**Table 1b. Cumulative rainfall (mm) from October 2018 to February 2019 for crop 2019 compared to that of crop 2018 and the long term mean (LTM)**

|             | North                | East                 | South                | West                | Centre               | Island               |
|-------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|
| <b>2018</b> | 992<br>(158)         | 1601<br>(137)        | 1415<br>(123)        | 922<br>(166)        | 1899<br>(167)        | 1373<br>(139)        |
| <b>2019</b> | <b>701</b><br>(112)* | <b>1222</b><br>(105) | <b>1234</b><br>(108) | <b>575</b><br>(103) | <b>1237</b><br>(109) | <b>1055</b><br>(107) |
| <b>LTM</b>  | 628                  | 1168                 | 1147                 | 556                 | 1138                 | 985                  |

\* figures in brackets are % of LTM

[Source: raw provisional data from Meteorological Services]

**Figure 1. Monthly rainfall (mm) for the period October 2018 to February 2019 for the 2019 crop compared to the same period of the 2018 crop and to the long-term mean (LTM).**



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

Maximum and minimum temperatures together with sunshine duration recorded during February 2019 at the four MSIRI agro-meteorological stations are summarized below.

**Table 2. Air temperature and sunshine duration recorded on MSIRI agro-meteorological stations in February 2019**

| Stations          | Maximum (°C) |       | Minimum (°C) |      | Sunshine hours |          |
|-------------------|--------------|-------|--------------|------|----------------|----------|
|                   | Feb 2019     | DevN* | Feb 2019     | DevN | Feb 2019       | % Normal |
| <b>Ferret</b>     | 31.5         | +0.6  | 23.5         | +1.0 | 235            | 110      |
| <b>Réduit</b>     | 29.8         | +1.6  | 21.6         | -0.3 | 225            | 109      |
| <b>Belle Rive</b> | 28.7         | +1.3  | 20.9         | +0.9 | 208            | 126      |
| <b>Union Park</b> | 29.2         | +1.8  | 21.7         | +0.7 | 215            | 141      |

\* Deviation from the Normal (1981-2010)

The mean monthly maximum temperature during February 2019 exceeded the normal at all stations ranging from +0.6°C at Ferret to +1.8°C at Union Park. The mean monthly minimum temperature was above the normal at all stations except at Réduit. More than 85% of days in February 2019 exceeded the normal maximum temperature at all four stations.

Sunshine hours during February 2019 were well above normal at all stations. The recorded bright sunshine, as a percentage of the normal was 110% at Ferret, 109% at Réduit, 126% at Belle Rive and 141% at Union Park. The above normal air temperature and solar radiation recorded during February 2019 were conducive to crop growth.

## 2. STALK HEIGHT

Measurement of stalk height was carried out during the last week of February 2019 at 46 sites in the five sugar cane sectors of the island. These selected sites are representative of the various agro-climatic zones, varieties and crop categories. Data collected are compared with those of the corresponding period in February 2018 and to the mean of the five best cane yielding crops of the period 2009 to 2018 in each sector (referred to as normal).

### 2.1 Stalk elongation (Table 3a)

Stalk elongation recorded during the month of February 2019 was higher than that of the same period in 2018 in sector North, equal in sector West but lagged behind in the other three sectors. During the month of February 2019, the highest stalk growth was observed in the South with 53.6 cm followed by the West (51.0 cm), North (50.9 cm), East (45.5 cm) and Centre (32.6 cm). Compared to the normal for the corresponding period, growth exceeded the normal by 6.4 cm in the North, 4.0 cm in the East, 7.9 cm in the South and 6.7 cm in the West while in the Centre it lagged behind by 1.9 cm.

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

| Sectors       | Stalk elongation (cm) during February |             |             | February 2019 as % of |              |
|---------------|---------------------------------------|-------------|-------------|-----------------------|--------------|
|               | 2019                                  | 2018        | Normal      | 2018                  | Normal       |
| North         | 50.9                                  | 49.1        | 44.5        | 103.7                 | 114.4        |
| East          | 45.5                                  | 47.9        | 41.5        | 95.0                  | 109.5        |
| South         | 53.6                                  | 54.9        | 45.7        | 97.6                  | 117.3        |
| West          | 51.0                                  | 51.0        | 44.3        | 100.0                 | 115.2        |
| Centre        | 32.6                                  | 36.5        | 34.5        | 89.3                  | 94.5         |
| <b>Island</b> | <b>48.8</b>                           | <b>50.0</b> | <b>43.0</b> | <b>97.7</b>           | <b>113.5</b> |

The island stalk elongation of 48.8 cm in February 2019 was slightly lower than that of the corresponding period in 2018 (50.0 cm) by 1.2 cm but exceeded the normal (43.0 cm) by 5.8 cm.

## 2.2 Cumulative Elongation (Table 3b)

Cumulative stalk growth from end-December 2018 to end-February 2019 reached 106.2 cm in the North, 104.4 cm in the East, 93.4 cm in the South, 94.0 cm in the West and 70.7 cm in the Centre. These cumulative growths compared to the same period last year were higher in sector North by 19.2 cm, the East by 14.9 cm and the South by 8.4 cm whereas in the West and Centre it lagged behind by 5.0 cm. For the same period, cumulative growth exceeded the normal in all sectors ranging from 3.7 cm in the Centre to 31.7 cm in the North. Island-wise the cumulative elongation of 98.1 cm in February 2019 was higher than those of the 2018 crop (87.6 cm) by 12.0% and the normal (80.8 cm) by 21.5%.

**Table 3b. Cumulative elongation at end-February 2019.**

| Sectors       | Cumulative elongation (cm) at end- February |             |             | End-February 2019 as % of |              |
|---------------|---|-------------|-------------|---------------------------|--------------|
|               | 2019  | 2018        | Normal      | 2018                      | Normal       |
| North         | 106.2                                       | 87.0        | 74.5        | 122.1                     | 142.5        |
| East          | 104.4                                       | 89.5        | 82.5        | 116.6                     | 126.6        |
| South         | 93.4  | 85.0        | 85.0        | 109.9                     | 109.8        |
| West          | 94.0  | 99.0        | 90.2        | 94.9                      | 104.3        |
| Centre        | 70.7  | 75.6        | 67.0        | 93.5                      | 105.5        |
| <b>Island</b> | <b>98.1</b>                                 | <b>87.6</b> | <b>80.8</b> | <b>112.0</b>              | <b>121.5</b> |

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

Total stalk height at end February 2019 was 141.8 cm in the North, 144.8 cm in the East, 122.3 cm in the South, 136.1 cm in the West and 106.3 cm in the Centre giving an island average of 133.9 cm. Compared to the corresponding period in 2018, stalk height to-date was higher by 35.8 cm in the North, 14.3 cm in the South and 1.5 cm in the East but lagged behind in sectors West and Centre by 4.9 cm and 12.9 cm, respectively. Total stalk height at end-February 2019 exceeded the normal by 35.8 cm in the North, 13.7 cm in the East and 8.6 cm in the West. It lagged behind the normal by 7.1 cm in the South and 4.2 cm in the Centre.

At island level, the total stalk height of 133.9 cm at end of January 2019 was higher than the corresponding period in 2018 by 11.3 cm (9.2 %) and the normal by 11.8 cm (9.6%).

**Table 3c. Total stalk height at end-February.**

| Sectors       | Stalk height (cm) at end-February |              |              | End-February 2019 as % of |              |
|---------------|-----------------------------------|--------------|--------------|---------------------------|--------------|
|               | 2019                              | 2018         | Normal       | 2018                      | Normal       |
| North         | 141.8                             | 106.0        | 99.2         | 133.8                     | 142.9        |
| East          | 144.8                             | 143.2        | 131.1        | 101.1                     | 110.5        |
| South         | 122.3                             | 108.0        | 129.4        | 113.2                     | 94.5         |
| West          | 136.1                             | 141.0        | 127.5        | 96.5                      | 106.8        |
| Centre        | 106.3                             | 119.2        | 110.5        | 89.2                      | 96.2         |
| <b>Island</b> | <b>133.9</b>                      | <b>122.6</b> | <b>122.1</b> | <b>109.2</b>              | <b>109.6</b> |

## 3. CROP 2019

Although rainfall for the month of February 2019 was below normal, the cumulative rainfall over the growth phase was still above normal. In general, the climate was characterised by above normal air temperature and sunshine duration which are conducive to crop growth. This is reflected in the stalk elongation rate during February 2019 which generally exceeded the normal in all the sectors except for the Centre. Total stalk height at the end of February 2019 was superior to the normal in sectors North, East and West but inferior in the South and the Centre. Over the island, the average stalk elongation and total height exceeded the normal by nearly 9%. At this stage of growth, crop 2019 can be considered to be a normal one provided the forthcoming climatic conditions remain normal until the end of the growth season.

**Figure 2. Stalk height at end- February 2019**

