MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2008

Status: End May 2008

1. CLIMATE

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

The island's average rainfall for the month of May 2008 was 324 mm over the sugar cane areas and represented 193% of the long-term mean (168 mm). Above normal rainfall was recorded in all sectors with 146 mm in the North, 306 mm in the East, 521 mm in the South, 90 mm in the West and 335 mm in the Centre. These amounts represented 136%, 170%, 246%, 161% and 160% of the long term mean for these sectors, i.e. 107 mm, 180 mm, 212 mm, 56 mm and 210 mm respectively.

Cumulative rainfall for the period October 2007 to May 2008 amounted to 1098 mm in the North, 1978 mm in the East, 1971 mm in the South, 749 mm in the West and 2016 mm in the Centre. The average for the island was 1677 mm. The cumulative rainfall represented 101%, 121%, 102%, 92%, 95% and 105% of the long-term mean of the respective sectors and of the island.

Excessive rainfall recorded during May was not conducive to sucrose accumulation and ripening.

1.2 Temperature

Maximum and minimum temperatures recorded during the month of May 2008 on MSIRI agro-meteorological stations are given below. The mean maximum temperature was above normal by 0.2 ^{o}C to 0.7 ^{o}C on the stations. The mean minimum temperature was close to normal at Belle Rive, above normal by 0.2 ^{o}C at Union Park whereas at Réduit and Pamplemousses it was below normal by 1.1 ^{o}C and 0.2 ^{o}C respectively. The resulting mean amplitude was above normal by 0.2 ^{o}C at Union Park to 1.3 ^{o}C at Réduit. Above normal temperature amplitudes especially as a result of lower minimum temperatures are favourable to sucrose accumulation and ripening.

Station	Maximum (^{o}C)	Minimum (^{o}C)	Amplitude (^{o}C)
Réduit	25.2 ***(25.0)****	16.8 ***(17.9)***	8.4 ***(7.1)***
Union Park	24.7 ***(24.3)***	17.8 ***(17.6)***	6.9 ***(6.7)***
Pamplemousses	28.8 ***(28.2)***	18.4 ***(18.6)***	10.4 ***(9.6)***
Belle Rive	25.3 ***(24.6)***	16.6 ***(16.5)***	8.7 ***(8.1)***

* Figures in bracket represent the normal (1971-2000)

1.3 Sunshine

Data from the MSIRI agro-meteorological stations reveal that the sky during May 2008 was more overcast than normal at Pamplemousses and Belle Rive where recorded sunshine amounted to 88% and 92% only of their normal. At Réduit and Union Park recorded bright sunshine was just below normal.

Station	May 2008	Normal	% of Normal
Réduit	218	221	99
Union Park	158	163	97
Pamplemousses	208	236	88
Belle Rive	185	201	92

2. STALK HEIGHT (TABLES 2A AND 2B, FIGURE 2)

Cane growth was assessed during the last week of May at the 48 sites representative of the five sugar cane sectors of the island. These sites cover the various agro-climatic zones, varieties under cultivation and stages of development of the crop. Data collected are compared with the mean of the five best cane yielding years of the last ten years (referred to as normal) for each sector and for the island, and with that of the corresponding period in 2007.

2.1 Stalk elongation

Stalk elongation during the month of May 2008 was inferior to that of the corresponding period in 2007 in all sectors except in the West where it was superior by 3.1 cm. Growth during the month of May amounted to 14.9 cm in the North, 8.8 cm in the East, 14.2 cm in the South, 15.5 cm in the West and 6.3 cm in the Centre. Compared to the normal, growth recorded during May was less in all sectors, namely by 1.0 cm in the North, 8.2 cm in the East, 0.9 cm in the South, 2.7 cm in the West and 9.9 cm in the Centre.

Island-wise, the stalk growth of 12.3 cm for the month of May, was lower than that of the corresponding month in 2007 and that of the normal by 0.6 cm and 2.6 cm.

2.2 Cumulative elongation (Table 2b)

Cumulative growth from end-December 2007 to end-May 2008 was above that of the corresponding period for the 2007 crop in all sectors except in the Centre where it was lower by 4.7 cm. Growth for that period stood at 161.0 cm in the North, 168.6 cm in the East, 177.0 cm in the South, 177.5 cm in the West, and 146.4 cm in the Centre. These figures were below their respective normal by 22.1 cm in the North, 20.0 cm in the East, 21.4 cm in the South, 13.5 cm in the West and 19.6 cm in the Centre.

Island-wise the cumulative elongation of 168.1 cm for the 2008 crop was above that of the 2007 crop by 6.0 cm (3.7%) but below that of the normal by 20.8 cm (11%).

2.3 Total cane height (Table 2c and Figure 2)

Total stalk height at end-May 2008 stood at 182.9 cm in the North, 214.9 cm in the East, 218.3 cm in the South, 211.0 cm in the West and 189.5 cm in the Centre. Compared to the corresponding period in 2007, cane was higher by 8.8 cm in the North, 9.4 cm in the East and 2.8 cm in the West. In the South and Centre it was below that at the same period in 2007 by 0.4 cm in the South and 2.3 cm in the Centre. Total cane height at end-May 2008 was below that of the normal in all sectors. It lagged by 30.3 cm (14.2%) in the North, 16.1 cm (7.0%) in the East, 31.9 cm (12.7%) in the South, 7.4 cm (3.4%) in the West and 24.2 cm (11.3%) in the Centre.

Island-wise the total cane height of 205.8 cm at end-May 2008 was higher than that of end-May 2007 by 4.4 cm (2.2%) but below that of the normal by 23.2 cm (10.1%).

3. SUCROSE ACCUMULATION (TABLES 3A AND 3B)

Cane samples from miller-planters' land in all factory areas and covering the main cultivated varieties were analyzed for sucrose content. 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 to those of last year and to those of the reference year 2001.

The *richesse* obtained was 10.3% in the North, 10.9% in the East, 9.6% in the South, 9.3% in the West and 10.3% in the Centre. Compared to the corresponding period in 2007, sucrose content at end-May 2008 was comparable in the North but lagged behind in the remaining sectors, i.e. by 0.5^{o} in the East, 0.9^{o} in the South, 1.1^{o} in the West and 0.6^{o} in the Centre. Sucrose content at end-May 2008 was comparable to that of the corresponding period of the reference crop 2001 in the South only but was higher by 2.2^{o} in the North, 1.6^{o} in the East, 0.9^{o} in the West and 1.2^{o} in the Centre.

From end-April 2008 up to end-May 2008, *richesse* improved in all sectors. The highest increment of 2.9^{o} was observed in the North followed by 1.9^{o} in the West, 1.8^{o} in the

Centre, 1.7^{o} in the South and 1.6^{o} in the East. For the corresponding period in 2007, the increments observed were 2.0^{o} in the North, 2.8^{o} in the East, 2.5^{o} in the South, 2.7^{o} in the West and 3.7^{o} in the Centre. On average, the increase in *richesse* was 2.6^{o} in 2007 compared to 1.9^{o} in 2008 for the same period. This lower gain is attributed to the less favourable weather experienced in 2008, namely the significantly higher rainfall recorded in May 2008.

Island-wise, the *richesse* of 10.1% recorded at the end of May 2008 is lower than that at the corresponding period in 2007 by 0.6^{o} but it is higher than that of 2001 by 1.1^{o}.

4. CROP 2008

Growth as expected receded during the month of May in the East and in the Centre which comprise higher altitude areas than the other three sectors. Growth will further recede when flowering, which is usually more profuse in the East, South and Centre namely, will also bring a halt to growth. Thus it will be difficult for the cane to recover to reach the normal height.

Moreover, the unfavourable weather, especially the above normal rainfall recorded in all sectors, has not been conducive to sucrose accumulation and ripening. This is clearly shown by the lower increase in *richesse* of 1.9^{o} obtained in May this year compared to the increase of 2.6^{o} in May 2007 and the lower *richesse* of 10.1% at end May 2008 as opposed to 10.7% at corresponding period in 2007. The heavy downpour of the last week-end will also not favour ripening in the near future. However, there is still some five months for maturation and the situation may change in the light of a favourable winter season.