MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2008

Status: End June 2008

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of June was above normal with an island average of 175 mm, representing 145% of the long-term mean of 120 mm. Above normal rainfall was recorded in all sectors with 137 mm in the North, 184 mm in the East, 201 mm in the South, 85 mm in the West and 231 mm in the Centre. These amounts represented 190%, 150%, 128%, 258% and 142% of their respective long-term mean.

Rainfall for the period October 2007 to June 2008 cumulated to 1235 mm in the North, 2162 mm in the East, 2172 mm in the South, 834 mm in the West and 2247 mm in the Centre to give an average of 1852 mm for the island. Cumulative rainfall represented 107%, 123%, 104%, 98%, 98% and 108% of the respective normal in the sectors and for the island, which stands at 1156 mm, 1756 mm, 2085 mm, 847 mm, 2291 mm and 1722 mm, respectively.

This rainfall regime, while definitely not conducive to ripening of the sugar cane, will however still be beneficial to rainfed crops which will be harvested late in the season in the North, West and low lying areas of the East and South as they are still growing.

1.2 Temperature

Maximum and minimum temperatures recorded during the month of June 2008 on MSIRI agro-meteorological stations are given below. The mean maximum temperature at Belle Rive was comparable to the normal whereas at the other stations it was below normal. The mean minimum temperature was below normal at Réduit by 0.3 ^{o}C whereas at Pamplemousses, Union Park and Belle Rive it was above normal by 1.0 ^{o}C, 0.6 ^{o}C and 0.5 ^{o}C respectively. The resulting mean amplitude was below normal at all stations. This below normal mean temperature amplitude is usually not conducive to both growth and ripening.

Station	Maximum (^{o}C)	Minimum (^{o}C)	Amplitude (^{o}C)
Réduit	22.8	15.8	7.0
	(23.3)*	***(16.1)***	***(7.2)***
Union Park	22.5	16.6	5.9
	(22.6)	***(16.0)***	***(6.6)***
Pamplemousses	25.9	17.6	8.3
	(26.5)	***(16.6)***	***(9.9)***
Belle Rive	22.9	15.2	7.7
	(22.9)	***(14.7)***	***(8.2)***

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

1.3 Sunshine

Data from the MSIRI agro-meteorological stations showed that the sky during June 2008 was more overcast than normal at Réduit, Union Park and Pamplemousses. Recorded bright sunshine as a percentage of the normal amounted to 90 at Réduit, 86 at Union Park and 94 at Pamplemousses. At Belle Rive, bright sunshine duration exceeded the normal by 5%. Below normal solar radiation is detrimental to photosynthesis and hence growth and sucrose accumulation.

Station	June 2008	Normal	% of Normal
Réduit	192	214	90
Union Park	124	145	86
Pamplemousses	208	222	94
Belle Rive	193	184	105

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

Cane growth was assessed during the last week of June 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 June 2008 amounted to 11.4 cm in the North, 2.9 cm in the East, 5.9 cm in the South, 4.3 cm in the West and 1.7 cm in the Centre. These figures were below those recorded at the corresponding period in 2007 by 2.2 cm in the North, 4.0 cm in the East, 2.7 cm in the South, 2.0 cm in the West and 3.4 cm in

the Centre. Compared to the normal, growth during the month of June was inferior in all sectors by 0.5 cm, 5.0 cm, 1.9 cm, 3.6 cm and 6.9 cm in the North, East, South, West and Centre respectively. Island-wise, the stalk elongation of 5.8 cm, recorded for the month of June, was below that of June 2007 by 3.0 cm and the normal by 2.9 cm.

2.2 Cumulative elongation (Table 2b)

Cumulative elongation for the period end-December 2007 to end-June 2008 stood at 172.4 cm in the North, 171.5 cm in the East, 182.9 cm in the South, 181.8 cm in the West and 148.1 cm in the Centre. Cumulated growth was above those of the corresponding period in 2007 by 9.1 cm in the North, 3.1 cm in the East, 2.6 cm in the South and 0.6 cm in the West whereas in the Centre it was below that of June 2007 by 8.1 cm. Compared to the normal, it lagged behind in all sectors. The difference amounted to 22.6 cm in the North, 25.0 cm in the East, 23.3 cm in the South, 17.2 cm in the West and 26.5 cm in the Centre. Island-wise the cumulative elongation of 173.9 cm for the 2008 crop was more than that of the 2007 crop by 3.0 cm but inferior to the normal by 23.7 cm.

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

By end-June 2008, total cane height was 194.3 cm in the North, 217.8 cm in the East, 224.2 cm in the South, 215.3 cm in the West and 191.2 cm in the Centre. Total cane height was above those at the corresponding period in 2007 in sectors North, East and West by 6.6 cm (3.5%), 5.4 cm (2.5%) and 0.8 cm (0.4%) respectively whereas in sectors South and Centre it was below that of June 2007 by 3.1 cm (1.4%) and 5.7 cm (2.9%). Cane height at the end of June 2008 was also inferior to the normal in all sectors, namely by 30.8 cm (13.7%) in the North, 21.1 cm (8.8%) in the East, 33.8 cm (13.1%) in the South, 11.1 cm (4.9%) in the West and 31.1 cm (14.0%) in the Centre.

At island level, the total cane height of 211.6 cm for the present crop was slightly higher than that of the 2007 crop by 1.4 cm (0.7%) but well below the normal, by 26.1 cm (11.0%).

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* at end-June 2008 was 11.4% in the North, 12.7% in the East, 11.3% both in the South and West, and 12.3% in the Centre compared to 11.1%, 13.0%, 12.1%, 12.2% and 12.9% respectively for the corresponding period in 2007. In the North, *richesse* was higher than at the corresponding period in 2007 by 0.3^{o} whereas, in the other sectors, it was lower by 0.3^{o} in the East, 0.8^{o} in the South, 0.9^{o} in the West and 0.6^{o} in the Centre. Compared to the corresponding period in 2001, the reference crop, *richesse* at the end of

June for the present crop was higher by 0.5^{o} in the North, 0.9^{o} in the East and 0.8^{o} in the Centre but it was lagging behind by 1.0^{o} in the South and 0.2^{o} in the West.

From end May 2008 up to end June 2008, *richesse* has increased in all sectors. The most significant increase is 2.0^{o} in the West and Centre, followed by 1.8^{o} in the East, 1.7^{o} in the South and 1.1^{o} in the North.

Island-wise, the *richesse* of 11.8% recorded at the end of June 2008 is similar to that of 2001 but lower than that at the corresponding period in 2007 by 0.4^{o}. The improvement of 1.7^{o} observed from end-May to end-June 2008 is however higher than the 1.5^{o} recorded during the corresponding period in 2007 but is below the 2.8^{o} recorded during the corresponding period in 2001.

4. CROP 2008

Excessive rainfall, reduced solar radiation, below normal maximum and generally higher minimum temperatures, during the month of June have not been conducive to both cane growth and sucrose accumulation. This is reflected in the lower elongation rates recorded in June compared to the same months in 2001 and 2007. Harvest having just started forthcoming weather conditions will determine the final yield particularly with respect to extraction rate.