

MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

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SUGAR CANE CROP 2013

Status: End June 2013

1. CLIMATE

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

Rainfall recorded over the sugar cane areas during the month of June was below normal with an island average of 80 mm, representing 67% of the long-term mean of 119 mm. Below normal rainfall was recorded in all sectors, with 33 mm, 99 mm, 101 mm, 4 mm and 131 mm in the North, East, South, West and Centre respectively. These amounts represented 46% of the long-term mean in the North, 80% in the East, 64% in the South, 12% in the West and 81% in the Centre.

Rainfall for the period October 2012 to June 2013 cumulated to 1033 mm in the North, 2064 mm in the East, 2016 mm in the South, 675 mm in the West and 2151 mm in the Centre for an average of 1707 mm for the island. Recorded rainfall represented 89%, 118%, 97%, 80%, 94% and 100% of the respective normal which stands at 1156 mm in the North, 1756 mm in the East, 2085 mm in the South, 847 mm in the West, 2290 mm in the Centre and 1711 mm for the island.

Table 1a Rainfall (mm) in June for crops 2012, 2013 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2012	43 (59)	132 (107)	79 (50)	6 (17)	124 (76)	83 (70)
2013	33 (46)*	99 (80)	101 (64)	4 (12)	131 (81)	80 (67)
LTM	72	123	157	33	163	119

* figures in brackets are % of LTM

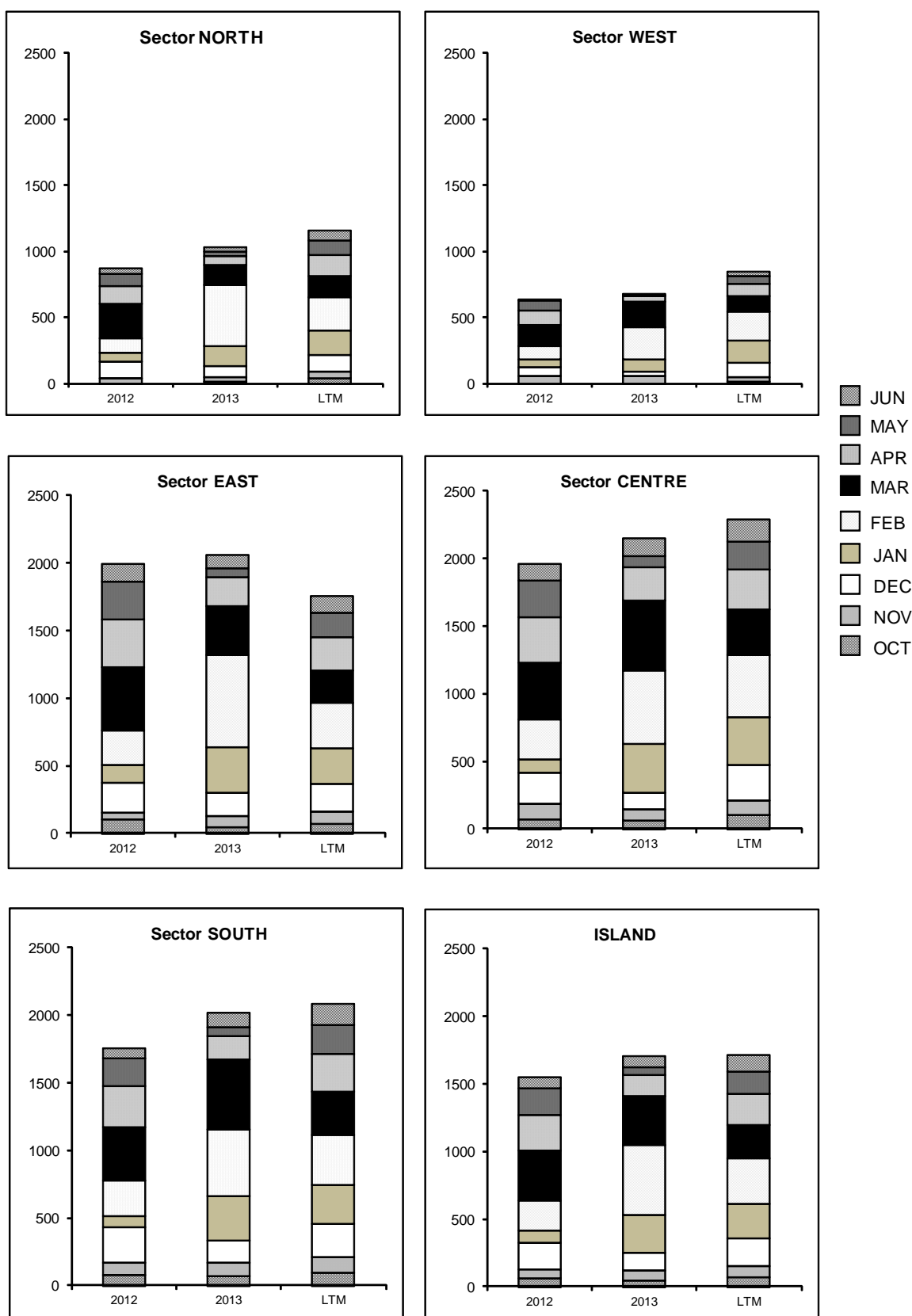
Table 1b Cumulative rainfall (mm) from October 2012 to June 2013 for crop 2013 compared to crop 2012 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
2012	875 (76)	1991 (113)	1759 (84)	635 (75)	1960 (86)	1546 (90)
2013	1033 (89)*	2064 (118)	2016 (97)	675 (80)	2151 (94)	1707 (100)
LTM	1156	1756	2085	847	2290	1711

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1 Monthly rainfall (mm) for the period October 2012 to June 2013 for the 2013 crop compared to the corresponding period of the 2012 crop and to the long term mean (LTM)



1.2 Temperature (Table 2)

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

The mean monthly maximum temperature was above normal at Union Park by 0.7°C, close to normal at Réduit and Pamplémousses, but below normal at Belle Rive by 0.4°C. The mean minimum temperature at Pamplémousses and Réduit was below normal by 0.6°C and 0.5°C, respectively. At Union Park, it was above normal by 0.4°C whereas at Belle Rive it was close to the normal. The resulting mean amplitude was above normal at Pamplémousses by 0.6°C, at Réduit by 0.4°C and at Union Park by 0.3°C whereas at Belle Rive it was below normal by 0.5°C.

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

Station	Maximum (°C)	Minimum (°C)	Amplitude (°C)
Pamplémousses	26.3 (26.3) *	16.2 (16.8)	10.1 (9.5)
Réduit	23.2 (23.3)	15.5 (16.0)	7.7 (7.3)
Belle Rive	22.6 (23.0)	14.8 (14.7)	7.8 (8.3)
Union Park	23.2 (22.5)	16.4 (16.0)	6.8 (6.5)

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

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations during June 2013 showed that above normal sunshine hours were recorded at Pamplémousses and at Réduit whereas at the other two stations it was close to the normal. Recorded bright sunshine as a % of the normal amounted to 108 at Pamplémousses, 104 at Réduit, 98 at Belle Rive and 100 at Union Park.

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

Station	June 2013	Normal	% of Normal
Pamplémousses	248	230	108
Réduit	228	219	104
Belle Rive	192	195	98
Union Park	146	146	100

2. STALK HEIGHT

Cane growth was assessed during the last week of June 2013 in the 60 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 in each sector, referred to as normal, and to the corresponding period in June 2012.

2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of June 2013 amounted to 6.1 cm in the North, 3.3 cm in the East, 5.8 cm in the South, 7.4 cm in the West and 3.6 cm in the Centre. These growth increments were lower than those for the corresponding month in 2012 by 8.1 cm in the North, 5.7 cm in the

East, 4.0 cm in both the South and the West, and 2.6 cm in the Centre. Compared to the normal for the same period, growth was again lower in all sectors except in the sector West. The 5.1 cm average elongation for the island represented 49.2% of that recorded in June 2012 (10.4 cm) and 64.0 % of the normal (8.0 cm).

Table 4a. Stalk elongation during the month of June

Sectors	Stalk elongation (cm) during June			June 2013 as % of	
	2013	2012	Normal	2012	Normal
North	6.1	14.2	11.7	43.0	52.0
East	3.3	9.0	6.7	36.7	49.0
South	5.8	9.8	6.8	59.2	85.5
West	7.4	11.4	6.7	64.9	110.8
Centre	3.6	6.2	4.8	58.1	75.3
Island	5.1	10.4	8.0	49.2	64.0

2.2 Cumulative elongation (Table 4b)

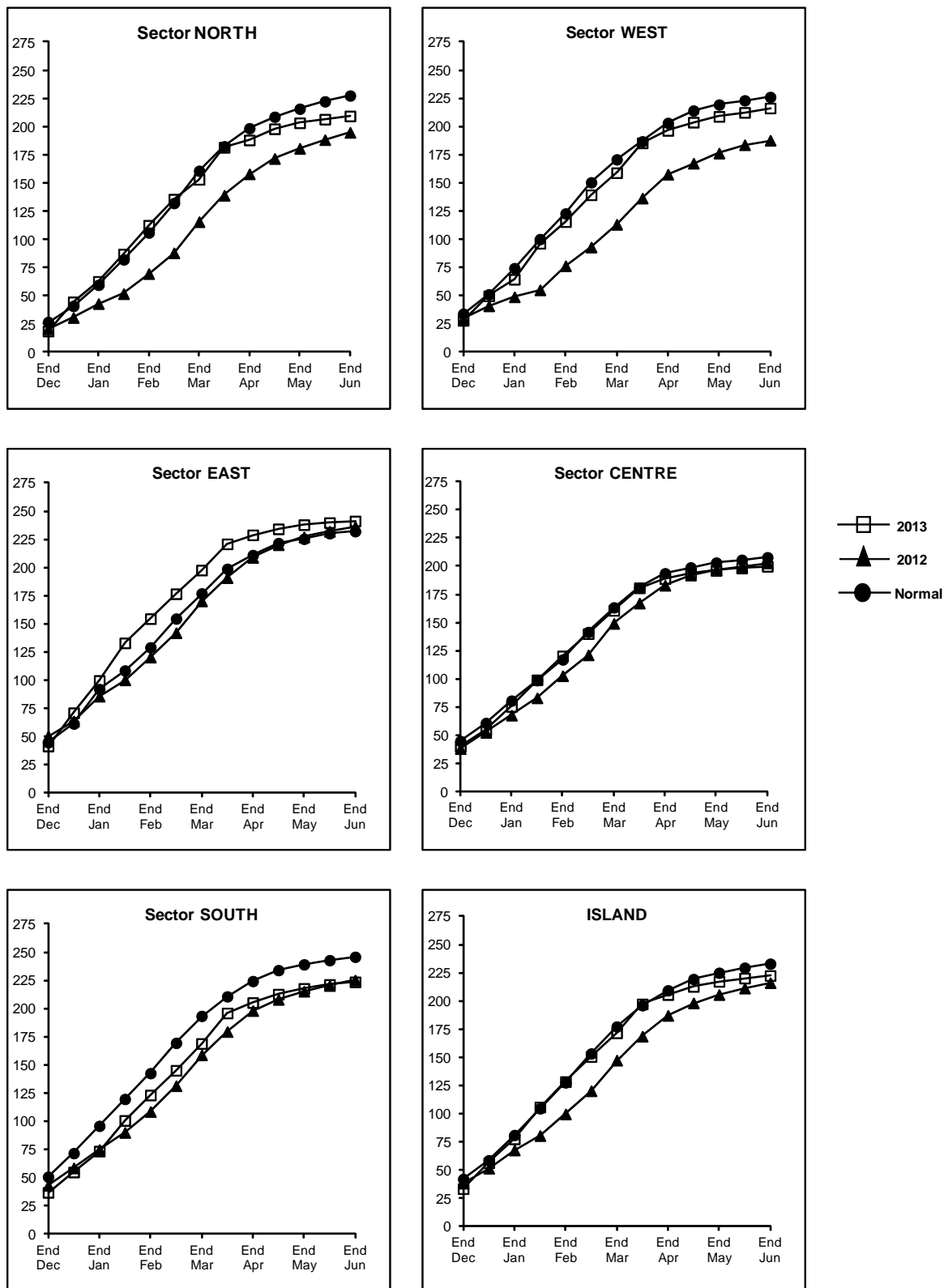
Cumulative growth from end-December 2012 to end-June 2013 reached 190.7 cm in the North, 199.5 cm in the East, 186.6 cm in the South, 188.2 cm in the West and 159.6 cm in the Centre. These data were higher than during the corresponding period in 2012 by 16.6 cm in the North, 14.0 cm in the East, 4.6 cm in the South and 30.2 cm in the West whereas in the Centre it lagged behind by 4.9 cm. For the same period, cumulative growth lagged behind the normal by 10.0 cm in the North, 8.3 cm in the South, 3.9 cm in the West and 3.2 cm in the Centre whereas in the East, cumulative growth exceeded the normal by 12.4 cm.

Table 4b. Cumulative elongation at end-June

Sectors	Cumulative elongation (cm) at end- June			June 2013 as % of	
	2013	2012	Normal	2012	Normal
North	190.7	174.1	200.7	109.5	95.0
East	199.5	185.5	187.1	107.5	106.6
South	186.6	182.0	194.9	102.5	95.7
West	188.2	158.0	192.1	119.1	98.0
Centre	159.6	164.5	162.8	97.0	98.0
Island	186.7	172.8	187.3	108.0	99.7

Island-wise the cumulative elongation of 186.7 cm is higher than that of the 2012 crop (172.8 cm) by 8.0% but is comparable to the normal (187.3 cm).

Figure 2. Stalk height at end-June 2013



2.3 Total stalk height (Table 4c and Figure 2)

Total stalk height at end June 2013 reached 209.4 cm in the North, 241.3 cm in the East, 223.7 cm in the South, 216.4 cm in the West and 199.9 cm in the Centre to give an island average of 222.6 cm. Compared to the corresponding period in June 2012, cane was taller by 14.6 cm in the North, 5.2 cm in the East and 28.6 cm in the West but was shorter in sectors South and Centre by 1.5 cm and 2.9 cm, respectively. Total stalk height at end-June 2013 exceeded the normal only in the East by 9.1 cm, whereas in the other sectors it lagged behind the normal by 18.1 cm in the North, 22.2 cm in the South, 9.8 cm in the West and 8.0 cm in the Centre.

Table 4c. Stalk height at end-June

Sectors	Stalk height (cm) at end-June			End-June 2013 as % of	
	2013	2012	Normal	2012	Normal
North	209.4	194.8	227.5	107.5	92.0
East	241.3	236.1	232.2	102.2	103.9
South	223.7	225.2	245.9	99.3	91.0
West	216.4	187.8	226.2	115.2	95.7
Centre	199.9	202.8	207.9	98.6	96.1
Island	222.6	216.2	233.1	103.0	95.5

Island-wise the total cane height of 222.6 cm at end-June 2013 was above that of the corresponding period in 2012 by 6.4 cm (3.0%) but lagged behind the normal by 10.5 cm (4.5%).

3. SUCROSE ACCUMULATION (Tables 5a and 5b)

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 June 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 5a Average Pol % Cane (richesse) at end June 2013

Sectors	M 52/78	M 703/89	R 573	M 695/69	R 575	M 387/85	M 1246/84	M 2256/88	M 2593/92	M 1400/86	M 1176/77	M 1861/89	R 579	M 1394/86	M 3035/66	M 1672/90	R 570
North			14.1	15.2			15.5	14.4	13.1	12.6	13.8		12.9			13.4	11.4
East		14.7	15.4	13.3	15.6	14.5	10.6	12.3	13.5	13.7	14.4		12.7				13.8
South	14.5	13.9	14.9	14.0	13.5	12.6			14.1	13.2	13.6	12.5	13.5	11.8		11.7	12.9
West					13.3				11.7	12.9	12.3		13.3				11.4
Centre	16.2	13.7	11.6			14.1				12.6	13.2		11.9		11.7		11.5

The *richesse* at end-June 2013 was 13.3% in the North, 13.5% in both the East and Centre, 13.7% in the South and 12.8% in the West. These figures were higher than those obtained at the corresponding period in 2012 by 2.7° in the North, 1.2° in the East, 1.3° in the South, 1.2° in the West and 1.0° in the Centre. Sucrose content at the end of June 2013 was also higher in all sectors than that of the corresponding period in 2011. The advantage was 2.0° in the North and the East, 1.5 in the South, 1.3° in the West and 0.3° in the Centre.

Table 5b Comparison of Pol % Cane (richesse) at the end of May and June 2011, 2012 and 2013

Sectors	MAY			JUNE		
	2011	2012	2013	2011	2012	2013
North	7.6	7.4	10.6	11.3	10.6	13.3
East	9.2	10.1	11.4	11.5	12.3	13.5
South	9.3	10.0	11.0	12.2	12.4	13.7
West	9.2	8.3	10.5	11.5	11.6	12.8
Centre	10.2	10.5	11.2	13.2	12.5	13.5
Island	9.0	9.3	11.0	11.8	11.9	13.5

From end-May 2013 up to end-June 2013, *richesse* has improved in all sectors. The increment observed was of the order of 2.7° in both the North and South, 2.1° in the East, and 2.3° in both the West and the Centre. On average for the island, the increase in *richesse* was 2.5° in 2013 which was lower than the increment of 2.6° obtained in 2012 and 2.8° in 2011 for the same period.

Island-wise, the *richesse* of 13.5% recorded at the end of June 2013 was superior to that of the corresponding period in 2012 (11.9%) by 1.6° and in 2011(11.8%) by 1.7°.

4. CROP 2013

As at 29 June 2013, 1045 ha representing about 3.2% of miller-planters' land had been harvested compared to 609 ha (1.7%) at the same period last year. Sector-wise and for miller-planters only, harvested area reached 5.0% in the East, 5.2% in the South and 0.7% in the Centre. Harvest has not yet started in the North and West sectors. An analysis of cane productivity based on the harvest statistics for miller-planters in sectors East, South and Centre follows. Because of the centralization of milling activities and since all the canes from the Centre are crushed at factories in the East, harvest statistics relative to extraction rate and sugar productivity have been combined for these two sectors.

4.1 Cane productivity (Table 6a)

Cane productivity for the island as at 29 June 2013 amounted to 76.7 TCH and was higher than the 68.5 TCH recorded in 2012 by 8.2 TCH (12.0%). Sector-wise, the best cane productivity to-date was recorded in the Centre with 89.3 TCH, followed by the South (81.8 TCH) and the East (69.2 TCH). Compared to the same period in 2012, cane productivity recorded to-date was higher in the East and South by 4.1 TCH and 11.1 TCH respectively. No comparison could be made for the Centre as harvest did not start at the corresponding period last year.

Table 6a Cane productivity (TCH) as at end June for the 2012 and 2013 crops

	East	South	Centre	Island
2012	65.1	70.7	-	68.5
2013	69.2	81.8	89.3	76.7

4.2 Extraction (Table 6b)

The recorded island extraction rate of 9.50% was higher than at the corresponding period in 2012 (9.11%) by 0.39°. Sector-wise, the extraction rate recorded was 9.46% in the East-Centre and 9.53% in the South. Compared to the corresponding period last year, extraction rate to-date was higher by 1.11° in sector East-Centre but lower by 0.17° in the South.

Table 6b Extraction rate (%) as at end June for the 2012 and 2013 crops

	East -Centre	South	Island
2012	8.35	9.70	9.11
2013	9.46	9.53	9.50

4.3 Sugar productivity (Table 6c)

Island-wise, the recorded sugar productivity of 7.29 TSH was higher than at the corresponding period in 2012 (6.24 TSH) by 1.05 tonne (16.8%). Sector-wise sugar productivity was 6.60 TSH in the East-Centre and 7.80 TSH in the South. Sugar productivity at end-June 2013 was higher than at the corresponding period in 2012 by 1.16 TSH in sector East-Centre and 0.94 TSH in the South.

Table 6c Sugar productivity (TSH) as at end June for the 2012 and 2013 crops

	East -Centre	South	Island
2012	5.44	6.86	6.24
2013	6.60	7.80	7.29

5. 2013 CROP PRODUCTIVITY

Weather during the month of June has been generally favourable for ripening with above normal solar radiation and temperature amplitude coupled with below normal rainfall. The latter has been however too low to maintain growth in the rainfed crops of the North, West and the lowland areas of the East and South sectors to boost cane productivity, especially for the late harvested crops.

Though it is still too early to draw a firm conclusion given the area harvested is only 3.2% and in three sectors only, harvest data to-date is indicative of a better cane productivity and extraction rate in 2013 compared to 2012. However, if the prevailing dry conditions persist coupled with a delayed harvest especially in the early maturing varieties with high flowering intensity, this could lead to cane desiccation and a reduction in cane productivity.