MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2012 6 July 2012

SUGAR CANE CROP 2012

Status: End June 2012

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 84 mm, representing 70% of the long-term mean of 121 mm. Rainfall was below the long-term mean in the North with 43 mm, the South with 79 mm, the West with 6 mm and the Centre with 124 mm. These amounts represented 59%, 50%, 17% and 76% of the respective long-term mean of the sector. In the East, the 132 mm of rainfall received during June 2012 exceeded the long-term mean by 7%.

Cumulative rainfall for the period October 2011 to June 2012 amounted to 1551 mm, representing 93% of the long-term mean for the island. During the same period 875 mm were recorded in the North, 1991 mm in the East, 1759 mm in the South, 635 mm in the West and 1960 mm in the Centre. These values represented 76%, 115%, 86%, 77% and 87% of the respective long-term means.

Table 1a Rainfall (mm) of June for crops 2011, 2012 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
Crop 2011	123 *(171)*	203 *(165)*	171 *(109)*	101 *(303)*	159 *(98)*	162 *(134)*
Crop 2012	**43** *(59)*	**132** *(107)*	**79** *(50)*	**6** *(17)*	**124** *(76)*	**84** *(70)*
LTM	72	123	157	33	163	121

* figures in brackets are % of LTM

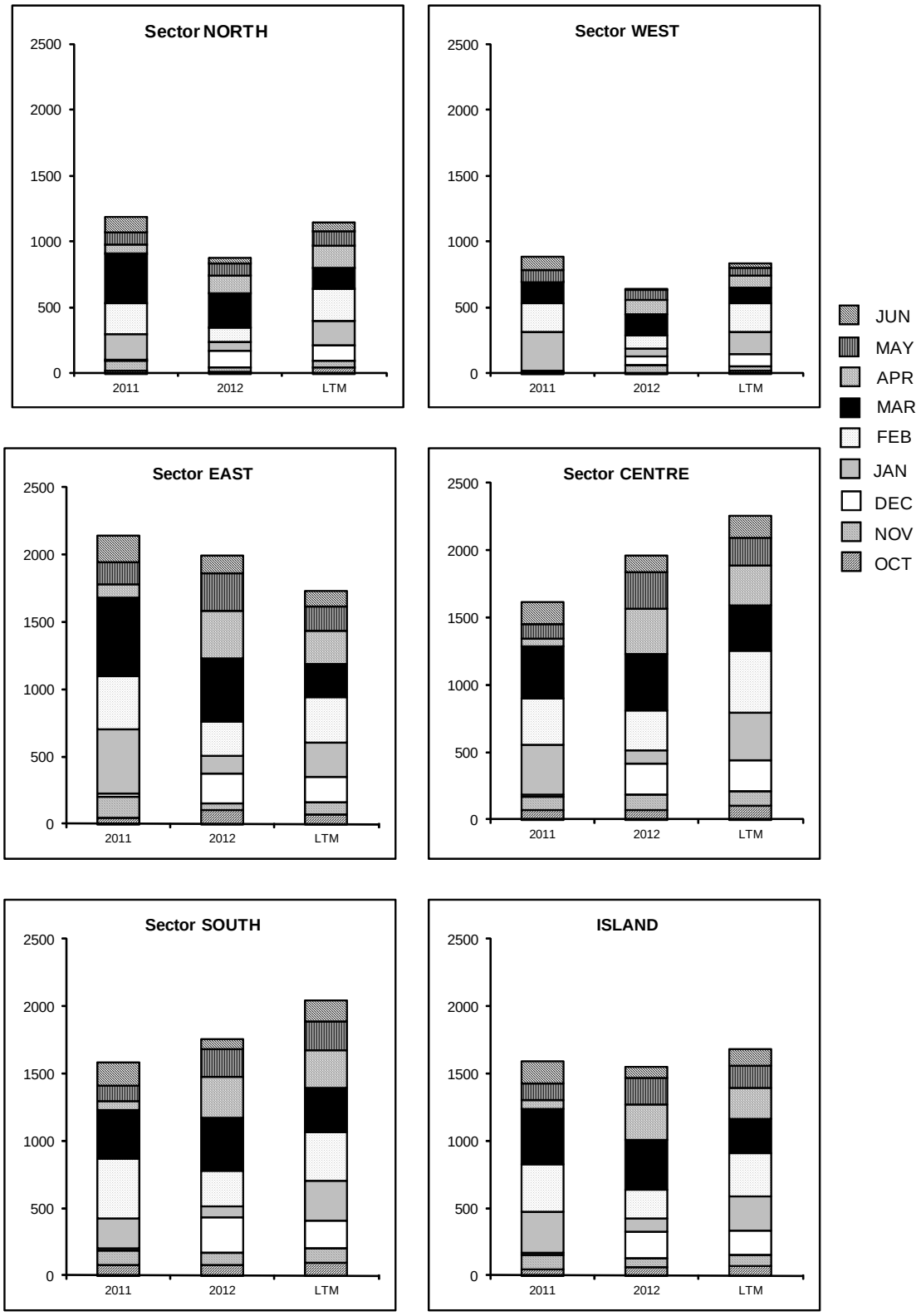
Table 1b Cumulative rainfall (mm) from October 2011 to June 2012 for crop 2012 compared to that of crop 2011 and the long-term mean (LTM)

	North	East	South	West	Centre	Island
Crop 2011	1189 *(104)*	2145 *(124)*	1579 *(77)*	882 *(106)*	1614 *(71)*	1589 *(95)*
Crop 2012	**875** *(76)*	**1991** *(115)*	**1759** *(86)*	**635** *(77)*	**1960** *(87)*	**1551** *(93)*
LTM	1145	1735	2041	830	2258	1677

* figures in brackets are % of LTM

[Source : raw provisional data from Meteorological Services]

Figure 1 Monthly rainfall (mm) for the period Oct 2011 to June 2012 for the 2012 crop compared to the corresponding period of the 2011 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 2012 on MSIRI agro-meteorological stations are given below.

The mean monthly maximum temperature was below normal by 0.2 ^{o}C at both Pamplemousses and Belle Rive but exceeded the normal by 0.5 ^{o}C at Réduit and 0.7 ^{o}C at Union Park. The mean monthly minimum temperature was similar to the normal at Réduit but higher than the normal by 0.9 ^{o}C at Pamplemousses, 0.6 ^{o}C at Union Park and 0.8 ^{o}C at Belle Rive. The resulting mean amplitude was comparable to the normal at Union Park, higher at Réduit but lower at Pamplemousses and Belle Rive.

Table 2. Maximum and minimum air temperatures recorded on MSIRI agro-meteorological stations in June 2012

Station	Maximum (^{o}C)	Minimum (^{o}C)	Amplitude (^{o}C)
Pamplemousses	**26.1** *(26.3) **	**17.7** *(16.8)*	**8.4** *(9.5)*
Réduit	**23.8** *(23.3)*	**16.0** *(16.0)*	**7.8** *(7.3)*
Belle Rive	**22.8** *(23.0)*	**15.5** *(14.7)*	**7.3** *(8.3)*
Union Park	**23.2** *(22.5)*	**16.6** *(16.0)*	**6.6** *(6.5)*

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

1.3 Sunshine (Table 3)

Data from the MSIRI agro-meteorological stations showed that sunshine hours during June 2012 were below normal at all the stations. Recorded bright sunshine as a percentage of the normal amounted to 92 at Pamplemousses, 98 at Réduit, 80 at Belle Rive and 93 at Union Park.

Table 3 Sunshine duration (hrs) recorded on MSIRI agro-meteorological stations in June 2012

Station	June 2012	Normal	% of Normal
Pamplemousses	212	230	92
Réduit	215	219	98
Belle Rive	156	195	80
Union Park	136	146	93

2. STALK HEIGHT

Cane growth was assessed during the last week of June 2012 at 60 sites in the five sugar cane sectors of the island. These sites are representative of the various agro-climatic zones, varieties and crop categories. Data collected are compared with those of the corresponding period in June 2011 and to the mean of the five best cane yielding crops of the last ten years in each sector (referred to as normal).

2.1 Stalk elongation (Table 4a)

Stalk elongation during the month of June 2012 amounted to 14.2 cm in the North, 9.0 cm in the East, 9.8 cm in the South, 11.4 cm in the West and 6.2 cm in the Centre. These growth increments compared to those of 2011 were higher by 3.2 cm in the West and by 1.6 cm in the Centre. In the other sectors they lagged behind those of 2011 by 1.0 cm in the North and 2.5 cm in the East whereas in the South growth during June 2012 was comparable to that of last year. Compared to the normal for the corresponding month, growth was higher in all sectors, the advantage being 2.5 cm in the North, 2.8 cm in the East, 3.0 cm in the South, 4.7 cm in the West and 1.0 cm in the Centre. The island average elongation of 10.4 cm was lower than that of June 2011 (10.9 cm) by 4.3%, but exceeded the normal (8.0 cm) by 30%.

Table 4a. Stalk elongation during the month of June

	Stalk elongation (cm) during June			June 2012 as % of	
Sectors	**2012**	**2011**	**Normal**	**2011**	**Normal**
North	14.2	15.2	11.7	93.4	121.2
East	9.0	11.5	6.2	78.3	146.1
South	9.8	9.7	6.8	101.0	144.5
West	11.4	8.2	6.7	139.0	170.7
Centre	6.2	4.6	5.2	134.8	118.3
Island	**10.4**	**10.9**	**8.0**	**95.7**	**130.4**

2.2 Cumulative elongation (Table 4b)

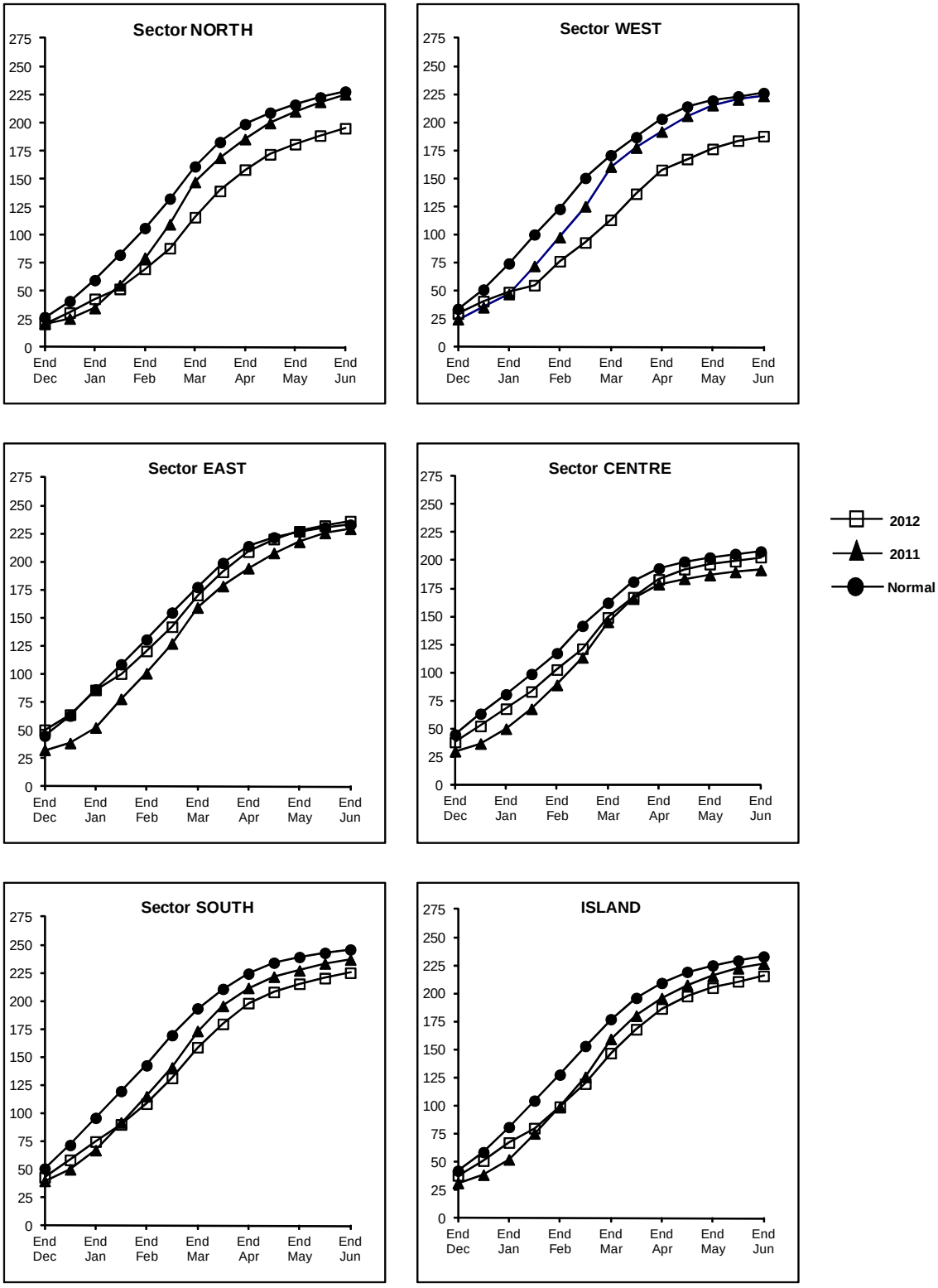
Cumulative growth from end-December 2011 to end-June 2012 reached 174.1 cm in the North, 185.5 cm in the East, 182.0 cm in the South, 158.0 cm in the West and 164.5 cm in the Centre. These data when compared to those of 2011 lagged behind by 29.9 cm (14.7%) in the North, 11.2 cm (5.7%) in the East, 15.0 cm (7.6%) in the South and 40.7 cm (20.5%) in the West. In the Centre cumulative growth in June 2012 was slightly higher than that obtained in June 2011.

Table 4b. Cumulative elongation at end-June.

	Cumulative elongation (cm) at end-June			June 2012 as % of	
Sectors	**2012**	**2011**	**Normal**	**2011**	**Normal**
North	174.1	204.0	200.7	85.3	86.7
East	185.5	196.7	188.0	94.3	98.7
South	182.0	197.0	194.9	92.4	93.4
West	158.0	198.7	192.1	79.5	82.3
Centre	164.5	161.3	162.8	102.0	101.1
Island	**177.5**	**195.3**	**190.6**	**90.9**	**93.1**

For the same period and apart from sector Centre, growth was below normal in all sectors. The difference amounted to 26.6 cm (13.3%) in the North, 2.5 cm (1.3%) in the East, 12.9 cm (6.6 %) in the South and 34.1 cm (17.7%) in the West. Island-wise the cumulative elongation of 177.5 cm is inferior to that of the 2011 crop (195.3 cm) and to the normal (190.6 cm) by 9.1% and 6.9% respectively.

Figure 2. Stalk height at end-June 2012.



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

At end-June 2012, total cane height stood at 194.8 cm in the North, 236.1 cm in the East, 225.2 cm in the South, 187.8 cm in the West and 202.8 cm in the Centre, giving an island average of 215.6 cm. Compared to the corresponding period in June 2011, cane was taller in the East and Centre by 6.9 cm and 11.4 cm, respectively but shorter in the other sectors by 30.2 cm in the North, 11.7 cm in the South and 35.7 cm in the West. Compared to the normal, total cane height at the end of June 2012 lagged behind by 32.7 cm (14.4 %) in the North, 20.7 cm (8.4 %) in the South, 38.4 cm (17.0%) in the West and 5.1 cm (2.4%) in the Centre. In the East, total cane height exceeded the normal by 3.1 cm.

Island-wise the total cane height of 215.6 cm at end-June 2012 was inferior to that of end-June 2011 by 10.9 cm (4.8%) and the normal by 17.3 cm (7.4%).

Table 4c. Stalk height at end-June.

	Stalk height (cm) at end-June			End-June 2012 as % of	
Sectors	**2012**	**2011**	**Normal**	**2011**	**Normal**
North	194.8	225.0	227.5	86.6	85.6
East	236.1	229.2	233.0	103.0	101.3
South	225.2	236.9	245.9	95.1	91.6
West	187.8	223.5	226.2	84.0	83.0
Centre	202.8	191.4	207.9	106.0	97.6
Island	**215.6**	**226.5**	**233.0**	**95.2**	**92.6**

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. 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 2012.

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			11.8	14.6			8.1	11.6	9.9	9.7	11.7		12.2			10.0	9.7
East	13.8	14.7	13.9	13.7	15.2	13.0	11.6	14.1	12.1	12.1	12.1		11.0		11.2		11.5
South	15.2	14.9	13.3	13.4	13.6	13.8			12.4	11.5	12.0	13.4	11.4	11.6		10.3	10.8
West			11.4		12.5				10.3	10.9	11.6		11.3				8.9
Centre	15.1	13.8	10.6			12.0				11.6	10.8		10.7		11.9		9.1

The *richesse* at end-June 2012 was 10.6% in the North, 12.3% in the East, 12.4% in the South, 11.6% in the West and 12.5% in the Centre. Sucrose content to-date was comparable to the corresponding period in 2011 in the West but was higher in the East and South by 0.8 ^{o} and 0.2 ^{o},

respectively. In the other two sectors, it lagged behind that of the corresponding period last year by 0.7^{o} in both the North and Centre. Sucrose content at the end of June 2012 was lagging behind that of 2010 by 1.6^{o} in the North, 0.3 ^{o} in the South and 1.9 ^{o} in the West, but was comparable in the other two sectors.

Table 5b Comparison of Pol % Cane (richesse) at the end of May and June 2010, 2011 and 2012.

Sectors	MAY			JUNE		
	2010	2011	2012	2010	2011	2012
North	10.0	7.6	7.4	12.2	11.3	10.6
East	10.6	9.2	10.1	12.4	11.5	12.3
South	10.8	9.3	10.0	12.7	12.2	12.4
West	10.9	9.2	8.3	13.5	11.5	11.6
Centre	11.1	10.2	10.5	12.6	13.2	12.5
Island	**10.6**	**9.0**	**9.3**	**12.6**	**11.8**	**11.9**

From end-May 2012 up to end-June 2012, *richesse* improved in all sectors with the highest increment of 3.3^{o} observed in the West followed by 3.2^{o} in the North, 2.4^{o} in the South, 2.2^{o} in the East and 2.0^{o} in the Centre. For the corresponding period last year, the increments recorded were 3.7^{o} in the North, 2.3^{o} in the East, 2.9^{o} in the South, 2.3^{o} in the West and 3.0^{o} in the Centre. On average for the island, the increase in *richesse* was 2.6^{o} in 2012 which was lower than the 2.8^{o} obtained in 2011 but higher than the increment of 2.0^{o} in 2010 for the same period.

Island-wise, the *richesse* of 11.9% recorded at the end of June 2012 was comparable to that of 2011 (11.8%) at the same period but lagged behind that of 2010 (12.6%) by 0.7^{o}.

4. CROP 2012

Weather during June 2012 has been average and not favourable for both growth and ripening. Overall for the island, rainfall, temperature amplitude and solar radiation were all below normal. This is well reflected in the island data for June. Both stalk elongation and sucrose accumulation were lower than during the same period last year for what can be considered as a comparable crop in its stage of development. Based on these data, it is anticipated that the 2012 crop will be lower than the 2011 one.