



MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Recommendation Sheet

April 2008, No. 163*

FERTILIZATION OF SUGAR CANE

Different types of blended or complex fertilizers are available to planters. The rates recommended to the planting community are meant to optimize revenue from investment on fertilizers. Therefore, fertilizer rates take into consideration fertilizer costs, sugar price and costs of harvest/transport of cane.

With the significant increase that has occurred in the price of fertilizers, (around 125% more for Nitrogen (N) fertilizer alone since 1998) and with the forthcoming reduction of 36% in sugar price by 2009, an application of **1.1 kg of N for every tonne millable cane expected** is henceforth recommended instead of *1.4 kg N / tonne millable cane*, to derive optimum revenue from N fertilization.

An example of fertilizer rate using factors 1.4 and 1.1

Two scenarios, one for a soil deficient in phosphorus (P) and one where there is no P deficiency:

		<i>Soil deficient in P</i> (<i>< 80 ppm</i>)		<i>Soil not deficient in P</i> (<i>> 80 ppm</i>)	
Expected yield	tonne cane/ha	80	100	80	100
	(tonne cane/arp)	(34)	(42)	(34)	(42)
<i>Amount N to apply based on factor 1.4</i>	<i>kg/ha</i>	<i>112</i>	<i>140</i>	<i>112</i>	<i>140</i>
	(<i>kg/arp</i>)	(<i>47</i>)	(<i>59</i>)	(<i>47</i>)	(<i>59</i>)
Amount N to apply based on factor 1.1	kg/ha	88	110	88	110
	(kg/arp)	(37)	(46)	(37)	(46)
Fertilizer formulation chosen		17-8-23⁺		23-0-30	
Amount fertilizer to apply	kg/ha	520	650	385	480
	(kg/arp)	(220)	(275)	(160)	(200)

⁺ Depending on available P as revealed by soil analysis, a supplementary amount may have to be applied.

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