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Studies on pre-milling sugar losses at Sevanagala Sugar Industries

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Losses of sucrose from harvesting to milling that are due to factors amenable to management had received little attention in the local sugar industry. This study was conducted to quantify this aspect of pre-milling losses of sucrose in sugarcane delivered at Sevanagala factory in 1999.

Sample consisted of 50 sugarcane allotments selected at random and divided equally between each of the sugarcane growing regimes (irrigation/rain-fed). Results show that irrigated fields had 4.24 ± 1.37 t/ha of stubble left on the ground compared to 2.25 ± 0.46 t/ha in rain-fed fields leading to a loss of 960 tones of sugar due to this reason alone. In the irrigated sector, pre-milling purity loss was 4.5% while it was 2% in rain-fed sector. Of the non sugars tested, there was over two fold increase of dextrans and 22 fold increase of gums in the rain-fed sector compared to irrigated sector during pre-milling period. Reducing sugars increased by about 30% in both the sectors. Cane from irrigated sector had over 7% extraneous matter while that of the rain-fed sector was over 4.5% making extraneous matter in Sevanagala cane far in excess of the world standard of 2%.

Estimates using above data show that the total sugar loss during the year 1999 at Sevanagala due to pre-milling losses was over 1997 tones. These findings highlight the importance of minimizing kill to mill intervals, extraneous matter and stubble to limit pre-milling losses in commercial sugar production at Sevanagala.