

ANALYSIS OF SUGAR CONTENT IN CARBONATED BEVERAGES IN SRI LANKA

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Carbonated beverages are popular among children and adults in Sri Lanka. Sugar is added to beverages as major quality attributes. There were reported cases with high amount of sugar level than recommended level in some soft drinks. World Health Organization has recommended <10 percent daily calories from free sugar in line with controlling the escalating non communicable diseases. In line with that Ministry of Health has recommended 6 teaspoons (25. grams) of sugar per day for adults in Sri Lanka. Government also passed a regulation to display color codes (Red, Amber and Green) in beverage bottles according to the specified sugar levels. If sugar levels below 2g/100ml-Green, 2-11g/100ml-Amber and above 11g/100ml-Red color codes should be displayed. Objectives of this study was to quantify the sugar content of carbonated beverages available in Sri Lanka and to compare with colour codes appeared in the bottles. Ten brands and in each brand, 5 samples with different batches from Colombo district were analyzed and the mean value was taken as final. Sugar content was analyzed quantitatively using refractometry. Validation was done using Lane and Eynon method for all the samples. According to the analysis results, the sugar content was from 8.3 ± 0.1 g/100ml to 14.2 ± 0.1 g/100ml. The test results of the sugar content investigated were within the range of the colour codes displayed in the labels. In conclusion, all the analyzed brands of carbonated beverages contain high sugar level falling into either red or amber color code. Need awareness programmes for consumers for better choices and producers to consider reformulation of beverages to suit the recommendation of World Health Organization.

Keywords: *Refractometry, carbonated beverages, Lane & Eynon method, Sucrose.*