# PHYSIOCHEMICAL AND MICROBIOLOGICAL CHARACTERISTICS OF MOLASSES

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Composite molasses samples were collected fortnightly from the Sevanagala sugar factory and analysed for their total solids, water contents, pH, total sugars, unfermentable sugar, total nitrogen, crude protein, ash content and composition.

Analytical results revealed that the water content at the start was low (24.9%) and increases to 30.5% at the end of the season. Total solids remained constant through out the season and total sugars varied between 64.4% to 67.9%. Sucrose content did not exceed 35.2%. The unfermentable sugars varied between 2%-6% and the average total nitrogen content was 0.31%. The pH values remained between 5 and 6 through out. Average ash content was 9.9%. Ash analysis in an atomic absorption spectrophotometer showed that the samples were consisted of an average of 1% potassium, 3.56% calcium, 0.23% magnesium, 0.144% sodium, 447ppm phosphorous and 121 ppm of copper.

The microbiological analysis indicated that the samples were heavily contaminated with mesophilic and thermophilic bacteria, fungi and yeast. Statistical analysis of data showed that physiochemical characteristics of molasses was uniform through out the season.