A Comparative Study of Thermally Treated and Untreated Sugarcane Juice

Samreen, Ch V V Satyanarayana, L Edukondalu and M Sandhya College of Agricultural Engineering, Bapatla 522 101, Andhra Pradesh

ABSTRACT

Sugarcane juice is commonly used as a delicious drink in both urban and rural areas. Sugarcane juice is spoiled quickly due to the pres-ence of simple sugars. Preservation of sugarcane juice was examined to reduce the spoilage and to increase the shelf life using thermal treatment. A study was carried out to preserve sugarcane juice by thermal treatment and compare with the untreated juice. The result revealed that good quality sugarcane juice of variety CO380 with satisfactory storage stability at refrigeration could be prepared by heat treatment at 80°C for 5 min. Physico – chemical analysis revealed that the TSS, colour and pH value of sugarcane juice decreased during storage. The TSS of thermally treated juice ranged from 22 to 19.9 % during its storage. The pH was recorded as 4.65 for thermally treated juice. Thermally treated juice showed lower reduction in total sugars from 20.3 to 18 % during storage period. The reducing sugars increased during storage. The turbidity of thermally treated juice was very less it ranged from 70.2 to 50.7 % during its storage. The thermally treated juice gave good results when compared to untreated sugarcane juice.

Key words : Sugarcane juice, Thermally treated, Preservation, Simple sugars, Total sugars, Reducing sugars and Turbidity.