Abstract No: 103

Plant Science and Forestry

IMPROVING THE QUALITY OF PALMYARH BOTTLED TODDY AND ITS PARTIAL CLARIFICATION

<u>Subajini Mahilrajan</u>*, Robika Kailayalingam, Srithayalan Srivijeindran and Ponnuchamy Navaratnam

Palmyrah Research Institute, Kaithady, Jaffna, Sri Lanka *jsubajini@gmail.com

A sample of palmyrah toddy was obtained from Kaithady Palm Development Cooperative Society, Sri Lanka and allowed for prolonged (22 h) natural fermentation under the ambient laboratory conditions (~30 °C). It yielded the highest percentage of alcohol [5.2 %, (v/v)] and the least acidity (0.57). Clarification of toddy carried out by both membrane filtration using 12 μ m and 0.45 μ m (control and the treatment, respectively for yeast) filter papers and centrifugation (locally applicable speed, 3000 rpm for 10 min). These clarification methods resulted 494, 42.5 and 55.6 NTU turbidity, respectively, whereas the turbidity of the fresh toddy was 678 NTU. However, membrane filtration method reduced the alcohol content by 40 %. To find out the optimum conditions for the pasteurization, the fresh toddy was bottled and heated at varying temperatures (55, 60, 65, 70, 75, 80 and 85 °C) for 20 min. Percentage alcohol content remained the same after the pasteurization conducted with all the temperatures. Alcohol content, acidity and the TBC (CFU/ml) of the toddy sample pasteurized at 80 °C for 20 min was satisfactory with values of 5.0, 0.44 % and 18, respectively. Heat treatment (pasteurization) improved the quality (alcohol content, acidity and turbidity) of the final product and its shelf life for 6 months at room temperature.

Financial assistance given by the Ministry of Traditional Industries & Small Enterprise Development is acknowledged.