

QUALITY EVALUATION OF AVOCADO FRUIT YOGHURT MADE FROM BUFFALO MILK

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Buffalo milk is well suited for the development of processed dairy products due to the high content of total solids and nutrients. Yoghurt is a fermented dairy product obtained from milk fermented by lactic acid bacteria. Incorporation of fruits with yoghurt may increase the nutritional value and consumer acceptability. This research was designed to develop an avocado incorporated buffalo milk yoghurt with high consumer acceptability. Yoghurt samples were prepared with different percentages of avocado puree as follows: T1; 0% (control), T2; 5%, T3; 10% and T4; 15%. Best level of avocado puree was determined by a sensory evaluation with fifteen untrained panellists using five point hedonic scale. Titratable acidity (%), pH, coliform, yeast and mould counts, syneresis (%) and water holding capacity (%) were assessed during

the refrigerated (5 °C) storage for four weeks. Results of the sensory evaluation revealed that T3 yoghurt samples were significantly ($p < 0.05$) preferred over other groups. During storage pH and titratable acidity of T3 samples fell within 4.38 ± 0.02 to 3.72 ± 0.03 and $0.93 \pm 0.15\%$ to $1.80 \pm 0.10\%$ respectively. Syneresis of T3 samples was increased from $21.24 \pm 1.71\%$ to $32.17 \pm 2.66\%$ and water holding capacity was decreased from $44.17 \pm 1.64\%$ to $38.33 \pm 4.01\%$ during storage. No coliform counts were observed in any yoghurt sample during storage. Higher level of yeast and mould counts were observed in yoghurt from T3 group compared to the control. According to the Sri Lanka Standards, yeast and mould counts were within the acceptable limits for two weeks in yoghurt from T3 group, while four weeks in control. The appearance of yoghurt (T2, T3 and T4) from control was poor after three weeks of storage. Therefore, incorporation of 10% avocado puree into yoghurt is possible and the product can be stored for two weeks in refrigerated condition while buffalo milk yoghurt without avocado can be stored for three weeks without major quality deterioration.

Keywords: Avocado, Buffalo milk, Fruit yoghurt