

Development and Investigation of Cow Milk Yoghurt by Incorporating Kitul sap

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Yoghurt is a fermented highly nutritional dairy product, and is a popular product throughout the world. In this study, yogurts were prepared by adding of kitul sap at different concentrations of 4%, 8%, 12% and 16% and those yogurts were analyzed for physiochemical attributes such as titrable acidity, pH, dry matter, ash, total sugar, and reducing sugar and sensory attributes such as colour, flavour, taste, texture and overall acceptability at day 1, week 1, week 2, week 3, and week 4 of storage. The result has shown that the significance ($p < 0.05$) differences between yoghurt made from without kitul sap and kitul sap added yoghurt in terms pH, titrable acidity, ash, dry matter, total sugar and reducing sugar at day one. The means value for ash, dry matter, total sugar, reducing sugar, titrable acidity and pH for the yoghurt made from without kitul sap were 0.86 ± 0.04 , 18.22 ± 0.10 , 12.27 ± 0.08 , 2.47 ± 0.02 , 0.71 ± 0.01 and 4.55 ± 0.67 , respectively at day one. Further, the results has shown that titrable acidity, ash and dry matter contents were significantly ($p < 0.05$) increased during the storage period whereas total sugar and reducing sugar were ($p < 0.050$) reduced with storage period. Higher values of titrable acidity (1.23%) and lower values of pH (3.62) were recorded for yoghurt made with 16% kitul sap at the 4 weeks of storage. The results revealed that the nutritional values of yoghurt were slightly increased with the addition of kitul sap in different concentrations. Bacterial colony count in the kitul sap added yoghurt was slightly higher when compared to yoghurt made without kitul sap. Organoleptic parameters such as flavour, colour, taste and texture of yoghurt made from 12% kitul sap was superior to yoghurt made from all other types of yoghurt. The 12% kitul sap added yoghurt had the highest overall acceptability (3.90 ± 0.74) scores compared to other all types of yoghurt.

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