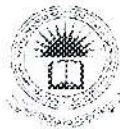


**ENHANCEMENT OF NUTRITIONAL VALUES OF
LABNEH BY ADDING FRESH LEAF (*Moringa oleifera*)
EXTRACT AS INNOVATIVE DAIRY PRODUCT**



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ABSTRACT

Moringa is a natural, whole-food source for vitamins, minerals, protein, antioxidants, and other important compounds that your body relies on to stay healthy. Therefore, the aim of this present study was to investigate the nutritional and physical properties and shelf life of Labneh incorporated with different amounts of fresh Moringa leaf extract, at the rate of concentration 0.2% (w/v), 0.4% (w/v), 0.6% (w/v). Labneh samples were analyzed for physico - chemical and sensory properties during refrigerated storage at 4 °C. The physico-chemical (ash, dry matter, FFA, protein, titratable acidity, pH, mineral contents) were analyzed at day 1, week 1, week 2, week 3 and week 4 of storage. And sensory characteristics (colour, taste, texture, flavor and overall acceptability) were analyzed at day 1, week 1 of storage period.

Ash, dry matter, fat, pH, titratable acidity and mineral contents, were significantly difference ($p < 0.05$) among the treatments at day one. The results of this study revealed that, the ash ($0.28 \pm 0.01\%$) and dry matter ($57.62 \pm 0.06\%$) content were significantly ($p < 0.05$) higher in Labneh incorporated with of 0.6% fresh Moringa leaf extract. Fat content was significantly ($p < 0.05$) higher ($7.13 \pm 0.15\%$) in Labneh incorporated with of 0.6% fresh Moringa leaf extract. pH was significantly higher ($4.87 \pm 0.01\%$) in Labneh incorporated and titratable acidity was significantly ($p < 0.05$) lower ($1.32 \pm 0.01\%$) in Labneh without leaf extract added. During storage, the ash and dry matter content were significantly ($p < 0.05$) increased and FFA content was significantly ($p < 0.05$) increased. pH content was significantly ($p < 0.05$) decreased and titratable acidity was increasing with the storage period. Organoleptic properties were evaluated though the panel of 20

members. As a results of organoleptic characteristics revealed that, 0.2% fresh Moringa leaf extract added Labneh had the highest mean score of overall quality of all sensorial properties namely, colour, taste, texture, flavor, and overall acceptability. Results revealed that most of the panelist accepted.

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