

DEVELOPMENT OF FIBER AND IRON ENRICHED STIRRED YOGHURT BY USING FINGER MILLET (*Eleucine coracana*)

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Dietary fiber provides many health benefits and amount of dietary fiber consumed by children is inadequate for optimal health promotion and disease prevention. Low level of fiber consumption has observed specially in most of the developing countries. The present study was carried out to develop a fiber and iron enriched stirred yoghurt using finger millet flour as a stabilizer. The levels of 4%, 6% and 8% finger millet flour were incorporated and yoghurt produced without finger millet was considered as the control. The treatments were arranged in Completely Randomized Design (CRD) with four replicates. Acidity and pH were recorded in $\frac{1}{2}$ hrs intervals during incubation and 3hr interval after incubation. Shelf-life of the best treatment was determined by microbiological, chemical and sensory evaluation tests at 0, 7 and 15

days of storage at 4°C . Citric acid was added before fermentation to reduce the pH to a safer level. Parametric data (acidity, pH) were analyzed using SAS. The organoleptic data were analyzed using Friedman test in MINITAB. Results revealed that addition of citric acid before fermentation was not possible. Therefore, citric acid was added before stirring the yoghurt to produce a safe product and there were no significant differences ($p>0.05$) among treatments for quality attributes that tested. Yoghurt added with 8% finger millet flour was selected as the best product, which contained

4.9% crude protein, 1.2% fiber and $1.12 \times 10\%$ iron. During 15 days of storage at 4°C , microbial counts, acidity and pH were within the standards specified by the Sri Lankan Standard Institute. Therefore, the developed product could be stored safely for 15 days at refrigerated temperature. The yoghurt produced by adding 8% finger millet could be recommended as a fiber and iron enriched product for future needs.

Key words : Fiber , Finger millet, Iron, Stirred yogh