

DEVELOPING A DRUMSTICK (*MORINGA OLEIFERA*) INCORPORATED FUNCTIONAL DRINKING YOGHURT

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Moringa oleifera leaves have been reported to be a rich source of β -carotene, protein, vitamin C, calcium and potassium. In addition, it is reported that *Moringa* leaves possess bioactives that bring about a myriad of health benefits. Incorporating *Moringa* into yoghurt can increase the health benefits. *Moringa oleifera* leaf samples, sugar and gelatin were obtained from local market. Liquid milk was purchased from University of Peradeniya and the starter culture was obtained from Veterinary Research Institute (VRI), Gannoruwa. *Moringa* leaf powder (DMLP) was prepared by drying, grinding and sieving of *Moringa* leaves. The particle size of DMLP was less than 125 μm . Set yoghurt was prepared incorporating varying quantities of DMLP [0.5, 1, 2 and 4%, (w/w)] to the yoghurt mixture. Stirred yoghurt was prepared following the same procedure with the exception of adding extra sugar or water. The so prepared set and drinking yoghurt samples were evaluated for sensory attributes to select the best concentration of DMLP for drinking and stirred yoghurts. According to the paired preference test, drinking yoghurt containing 1% DMLP was the most preferred yoghurt formulation, thus set yoghurt was dropped from the rest of the study. It was observed that 1% DMLP was the most preferred formulation for drinking yoghurt. Furthermore, the selection of the best flavouring agent for set and drinking yoghurts was also carried out through the sensory analysis. Mango flavour was the most preferred flavouring agent for 1% DMLP added drinking yoghurt. Proximate analysis of the best set and drinking yoghurts was performed following standard AOAC methods. Proximate analysis revealed that drinking yoghurt containing 1% DMLP contained $74.28 \pm 0.03\%$ moisture, $25.72 \pm 0.03\%$ dry matter, $3.91 \pm 0.655\%$ ash (on dry weight basis) and $1066.91 \text{ mg}/100\text{g} \pm 28.39$ calcium. The titratable acidity, TSS and pH of yoghurt were $0.82 \pm 0.010\%$, $21.97 \pm 0.06\%$ and 4.60 ± 0.01 , respectively. It is concluded that *Moringa* dry leaf powder, which carries many bioactive properties can be incorporated into drinking yoghurt without affecting the sensory attributes.