

DEHYDRATED POWDER OF “MURUNGA” (*Moringa oleifera*) LEAF AND CARROT FORTIFIED BREAD SPREAD

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This study was carried out to develop a bread spread with dehydrated powder of 'Murunga' leaves an underutilized plant in Sri Lanka, which has high amount of nutrients. Four recipes were prepared changing the percentage of dehydrated *Murunga* leaves powder ($t_1=35$, $t_2=40$, $t_3=45$, $t_4=50\%$) and dehydrated carrot powder ($t_1=15$, $t_2=10$, $t_3=5$, $t_4=0\%$). Sensory evaluation was conducted with thirty untrained panelists using a five point Hedonic scale. The selected recipe from the sensory evaluation was stored in two packaging materials (glass bottles and polypropylene cups) and stored at two storage conditions, ambient (28 °C-30 °C and RH-65 %-75%) and refrigeration (7 °C-9 °C and RH-75%-80%) for three months period. The experiment was conducted using Completely Randomized Design in a factorial experiment. Moisture content, acidity, pH, rancidity, microbial count and sensory acceptability of the product were determined at one month intervals using standard methods. Increase in acidity, pH and moisture was observed in the samples stored in polypropylene cups at ambient and refrigerated conditions after one month and two months respectively and the microbial count was higher than the standard limit specified by the Sri Lanka Standards Institution for Margarine. There was a significant difference ($\alpha=0.05$) in moisture content, acidity, rancidity and pH during the three months of storage in glass bottles under refrigerated and ambient conditions. The coli-form bacteria were not observed in all conditions up to the three months of storage. The study revealed that good quality bread spread could be prepared by using dehydrated *Murunga* leaves and carrot powder and kept for three months period at ambient and refrigerated condition in glass bottles without quality deterioration.

Key words: Bread spread, Carrot, Murunga leaf powder