

Effect of Dried *Murraya koenigii* Leaf Powder on Quality Parameters of Chicken Meat Cracker

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There is huge consumer demand for pre-cooked and shelf-stable meat-based snack products. Dried *Murraya koenigii* leaf powder (DMLP) possesses antioxidant, antidiabetic, anticancer, anti-inflammatory, and antimicrobial properties. This study was conducted to develop a chicken meat cracker incorporated with DMLP and to determine the physicochemical and sensory properties. Preliminary trials were conducted to finalize the best ratio of wheat and corn flour. Chicken meat crackers were prepared separately from the dough incorporated with DMLP at 0% (control), 1%, and 2%. After baking at 180°C for 15 minutes, samples were vacuum-packed and stored at 27°C. Proximate composition, pH, colour, water holding capacity (WHC), texture, microbial quality, and TBARS value were tested during the storage period. Sensory evaluations showed that 1:1 ratio of wheat: corn flour with 1% and 2% DMLP incorporated samples were acceptable. The hardness of the samples was decreased ($P < 0.05$) over the storage period. When considering the colour, the highest L^* value ($P > 0.05$) and b^* value ($P < 0.05$) was from 2% DMLP incorporated to sample, and the highest a^* value was from the control. The pH value reduced and TBARS values of all the samples increased over the storage period. At the initial stage, the lowest pH (7.73) and lowest TBARS value (0.76) was from 2% DMLP incorporated sample. *Salmonella*, *Escherichia coli*, yeast, and mold were absent in all samples up to one month storage period. Total plate count (TPC) values increased by 1% and 2% DMLP incorporated samples up to a month storage period. The highest TPC value was recorded from the control up to one month storage period. The highest average moisture content and the lowest ash content were recorded from the 2% DMLP incorporated sample. Thus, the results showed the possibility of utilizing both 1% and 2% DMLP to improve the nutritional characteristics of chicken meat crackers in equal amounts.

Keywords: Total plate count, Sensory, TBARS value, Hardness, *Murraya koenigii*