# Development of Roasted Sesame (*Sesamum indicum*) Incorporated Chicken Nugget

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Chicken nugget is an encrusted meat product. Roasted sesame seeds possess antioxidant and anticancer properties. Therefore, present study was to develop a value added chicken nugget by incorporating roasted sesame seeds and elucidate its quality parameters. Nuggets were prepared according to the commercial guidelines by incorporating roasted sesame and without sesame (control). Preliminary trials were conducted to determine the suitable levels of sesame. A sensory evaluation was conducted using a 7-point hedonic scale and 30 untrained panelists to select two best nugget samples with sesame. The control and two selected samples were tested for proximate composition, pH, colour, water holding capacity, cooking loss, microbial quality and TBARS value to evaluate lipid oxidation over a one-month storage period. Based on the results, 5, 10 and 15% (w/w) treatments were initially selected and nuggets with 5 and 10% (w/w) roasted sesame were chosen as the best treatments ($p<0.05$) during the sensory evaluation. Results further revealed that nuggets with 10% roasted sesame had the highest fat (8.84%), protein (14.24%) and ash (3.15%) contents compared to other treatments ($p<0.05$). At the initial stage of the storage, results showed that nuggets with 5% sesame had the highest pH (6.68) value and lowest cooking loss value (1.46%) while 10% sesame had the highest water holding capacity (97.28%). pH values and water holding capacity of chicken nuggets were decreased while cooking loss values were increased ($p<0.05$) in sesame added treatments. Furthermore, TBARS and total plate count values were increased in sesame added treatments with storage but, within the permitted levels. *Salmonella* and *Escherichia coli* were absent in all samples. Therefore, roasted sesame seeds can be used to prepare nuggets with high nutritional and sensory properties.

*Keywords:* Chicken nuggets, Roasted sesame, Antioxidant, Microbial, Sensory