

FORMULATION AND DEVELOPMENT OF VEGGIE FINGER INCORPORATED WITH EGG WHITE POWDER

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Incorporation of plant based products as an alternative source for meat products are very common and has increased as a strategy to improve nutritional aspects in human body. This study was carried out to produce low fat, high quality protein veggie finger incorporated with egg white, as a binding agent with other ingredients. Suitable vegetables were selected by trial and error methods and egg white powder was incorporated to each developed recipe and four treatments were prepared as T₁ (13% egg white, 37% vegetable mixture), T₂ (10% egg white, 40% vegetable mixture), T₃ (7% egg white, 43% vegetable mixture) and T₄ (4% egg white, 46% vegetable mixture). Sensory evaluation was carried out to select the best treatment. The

developed product was stored at -18°C for two months and total plate counts (TPC) of *E-coli*, *Salmonella* and *Staphylococcus* were counted in two week intervals over the period. Water holding capacity (WHC) and pH of the samples were also determined during the storage. Proximate analysis was used to determine the total soluble solids (TSS), fat, ash, protein and acid insoluble ash. Parametric data were analyzed by ANOVA using SAS and sensory data were analyzed by Friedman test in MINI TAB. The highest estimated rank was observed in T₃ which contained 7% egg white and 43% of vegetable mixture. External appearance, smell, saltiness, spiciness, firmness were not significantly different ($p > 0.05$) while internal appearance, internal and external color, smoothness, juiciness and overall acceptability were significantly different ($p < 0.05$) among the treatments. WHC and pH were not significantly different ($p > 0.05$) with storage period. The developed product was negative for TPC, *E-coli*, *Salmonella* and *Staphylococcus* during the storage and had a good texture which resembles with normal sausages in the market. Thus, incorporation of 7% egg white with vegetable mixture to produce a veggie finger is possible.

Key words: Binder, Egg white, Vegetables, Veggie finger