



Research article

PROXIMATE ANALYSIS, PHYSICAL QUALITIES AND CONSUMER PREFERENCES OF GLUTEN-FREE CHICKEN *OTAK-OTAK*

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Abstract: The development of *otak-otak* utilizing locally sourced food ingredients remains to be an area of interest. This study aimed on developing a gluten-free *otak-otak* by incorporating arrowroot flour and mocaf as alternatives for wheat and tapioca flour. The study assessed its chemical composition, physical quality, and sensory attributes to evaluate its overall quality. The study was divided into four different formulations combining arrowroot flour and mocaf flour in varying proportions; P1, P2, P3 (50:50, 70:30, and 90:10, respectively), while P0 served as the control using a 50:50 ratio of wheat and tapioca flours. A randomized design (CRD) with five replications tested for each formulation was applied in the experimental design. The proximate analyses results indicated that the fat content at P0 – P3 levels ranged from 2.70 to 4.04%; protein content from 7.12 to 8.18%; moisture content from 47.95 to 51.16%; ash content from 2.03 to 2.35%; and carbohydrates content from 33.05 to 38.67%. Additionally, cooking loss was between 14.94 and 18.61%, and water holding capacity ranged from 12.4 to 20.8%. Results from sensory evaluation indicated that consumers exhibited no significant preference for the *otak-otak* prepared with wheat and tapioca flour compared to those made with varying levels of arrowroot and mocaf flour. The hedonic scores varied from 2.35 to 2.87. All parameters exhibited no significant effect ($P > 0.05$) on *otak-otak* quality; yet, it met SNI standards, suggesting that arrowroot and mocaf flour are viable alternatives to wheat and tapioca flour.