

PENGARUH SUBSTITUSI TEPUNG UWI (*Dioscorea alata*) TERHADAP KUALITAS KIMIA, FISIK DAN SENSORIS *CHICKEN NUGGET*

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung uwi (*Dioscorea alata*) terhadap komposisi kimia, karakteristik fisik dan sensoris *chicken nugget*. Bahan yang digunakan dalam penelitian adalah daging ayam, tepung uwi, tepung terigu, telur, garam, bawang putih, ketumbar, lada, pala, tepung tapioka, tepung panir, air es dan minyak goreng. Substitusi tepung uwi terdiri atas 0, 25, 50, 75, dan 100% dengan setiap perlakuan terdiri atas lima replikasi. Variabel yang diuji adalah komposisi kimia meliputi kadar air, kadar protein, kadar lemak, karakteristik fisik meliputi pH, daya ikat air dan keempukan, dan kualitas sensoris meliputi warna, aroma, rasa, tekstur, keempukan dan daya terima. Data hasil uji komposisi kimia dan karakteristik fisik dianalisis menggunakan ANOVA pola satu arah dan diuji lanjut dengan *Duncan's New Multiple Ranges Test* (DMRT) sedangkan uji sensoris menggunakan *Kruskall-Wallis* dan diuji lanjut dengan *Mann-Whitney Test*. Hasil analisis menunjukkan bahwa substitusi tepung uwi berpengaruh nyata ($P < 0,05$) terhadap kadar lemak, daya ikat air, keempukan, warna, aroma, rasa, keempukan, dan daya terima namun tidak berpengaruh terhadap kadar air, protein, pH, dan tekstur *chicken nugget*. Kesimpulan penelitian ini adalah substitusi tepung uwi meningkatkan kadar lemak, menurunkan daya ikat air, keempukan, sensoris, serta tidak berpengaruh terhadap kadar air, kadar protein, nilai pH dan tekstur. Substitusi tepung uwi terbaik yaitu sebesar 25%.

Kata kunci: *Chicken nugget*, Tepung uwi, Komposisi kimia, Karakteristik fisik, Karakteristik sensoris

THE EFFECT OF SUBSTITUTION OF YAM FLOUR (*Dioscorea alata*) ON THE CHEMICAL, PHYSICAL AND SENSORIAL QUALITY OF *CHICKEN NUGGET*

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ABSTRACT

This study aimed to determine the effect of yam flour (*Dioscorea alata*) substitution on the chemical composition, physical and sensorial characteristics of *chicken nuggets*. The ingredients used in the research were chicken meat, yam flour, wheat flour, eggs, salt, garlic, pepper, coriander, nutmeg, tapioca flour, panir flour, ice water and cooking oil. The yam flour substitution consisted of 0, 25, 50, 75, and 100% with each treatment consisting of five replications. The variables tested were chemical composition including moisture content, protein content, fat content, physical characteristics including pH, water holding capacity and tenderness, and sensorial characteristics quality including color, aroma, taste, texture, tenderness and acceptability. Data of the chemical composition and physical characteristics tests were analyzed using one-way ANOVA and then further tested with *Duncan's New Multiple Ranges Test* (DMRT) while the sensorial test used *Kruskall-Wallis* were further tested with the *Mann-Whitney Test*. The results of the analysis showed that the substitution of uwi flour had a significant effect ($P < 0,05$) on fat content, water holding capacity, tenderness, color, aroma, taste, tenderness, and acceptability but had no effect on moisture content, protein, pH, and texture of *chicken nuggets*. The conclusion of this research is that yam flour substitution increases fat content, decreases water holding capacity, tenderness, sensorial, and has no effect on water content, protein content, pH value and texture. Yam flour substitution the best were 25%.

Keywords: *Chicken nuggets*, Yam flour, Chemical composition, Physical characteristics, Sensorial characteristics.