

**KEMENTERIAN KESEHATAN REPUBLIK INDONESIA**

**POLITEKNIK KESEHATAN KEMENKES RIAU  
PROGRAM STUDI DIPLOMA III GIZI**

**TUGAS AKHIR, JANUARI 2022**

**CHOLIJAH HARAHAP**

**SUBSTITUSI TEPUNG TERIGU DENGAN TEPUNG LABU KUNING  
TERHADAP SIFAT ORGANOLEPTIK DAN KANDUNGAN KALSIMUM  
NUGGET IKAN PATIN (*PANGASIUS HYPOPTHALMUS*)**

**xiii, 51 Halaman, 12 Tabel, 8 Gambar, 7 Lampiran**

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### **ABSTRAK**

Nugget merupakan produk olahan siap saji yang telah berkembang dan diminati masyarakat luas, mulai dari anak-anak hingga kalangan lanjut usia. Menambah nilai gizi pada nugget dapat dilakukan dengan substitusi tepung labu kuning. Tepung labu memiliki nilai gizi yang tinggi, meningkatkan nilai ekonomisnya dan juga dapat memperpanjang masa simpan jika dilakukan penyimpanan dengan baik. Tujuan penelitian ini yaitu mengetahui tingkat kesukaan terhadap rasa, warna, aroma, dan tekstur nugget ikan patin dengan substitusi tepung labu kuning.

Penelitian ini bersifat eksperimental dengan desain penelitian Rancangan Acak Lengkap (RAL) yang terdiri dari 4 macam perbandingan tepung terigu dan tepung labu yaitu 100%:0%, 80%:20%, 70%:30%, 60%:40%. Penelitian ini mengukur tingkat kesukaan terhadap rasa, aroma, warna dan tekstur yang dilakukan di Laboratorium Pangan Poltekkes Kemenkes Riau dengan jumlah 25 panelis agak terlatih. Pengukuran kadar kalsium. dilakukan di Laboratorium Hasil Perikanan dan Kelautan Universitas Riau dengan Metode AAS. Analisis data dilakukan dengan menggunakan uji *one way anova*  $p < 0,05$  apabila ditemukan perbedaan nyata maka dilanjutkan dengan uji Duncan.

Berdasarkan penelitian diperoleh bahwa warna paling disukai panelis adalah nugget ikan pada formulasi F1 (substitusi tepung labu 20%) sedangkan rasa, tekstur dan aroma yang paling disukai adalah formulasi F2 (substitusi tepung labu 30%). Dari hasil penelitian substitusi tepung labu pada nugget ikan patin  $p < 0,05$  yakni memberikan pengaruh nyata terhadap rasa, tekstur dan aroma, sedangkan pada warna nugget ikan patin dengan substitusi tepung labu yakni tidak ada pengaruh nyata. Kandungan kalsium nugget ikan menggunakan substitusi tepung labu 30% sebesar 356,6 mg/100g. Saran peneliti dari hasil penelitian adalah perlu dilakukan penelitian lanjutan terutama terhadap daya tahan atau masa simpan nugget ikan patin.

**Kata Kunci : Nugget, Ikan Patin, Tepung Labu, Tingkat Kesukaan dan Kalsium**

**MINISTRY OF HEALTH, REPUBLIC OF INDONESIA  
POLYTECHNIC OF HEALTH, RIAU  
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**CHOLIJAH HARAHAHAP**

**SUBSTITUTION OF WHEAT FLOUR WITH PUMPKIN FLOUR ON  
ORGANOLEPTIC PROPERTIES AND CALCIUM CONTENT OF  
CATFISH NUGGETS (PANGASIUS HYPOPTHALMUS)**

**xiii, 51 Pages, 12 Tables, 8 Pictures, 7 Appendices**

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**ABSTRACT**

Nugget is a ready to eat processed product that has developed and is in demand by the wider community, ranging from children to the elderly. To add nutritional value to the nuggets, it can be done by substituting pumpkin flour. Pumpkin flour has a high nutritional value, increasing its economic value and can also extend the shelf life if stored properly. The purpose of this study was to determine the level of preference for the taste, color, aroma, and texture of catfish nuggets with pumpkin flour substitution.

This research is an experimental research design with a completely randomized design (CRD) which consists of 4 kinds of ratios of wheat flour and pumpkin flour, namely 100%:0%, 80%:20%, 70%:30%, 60%:40%. This study measures the level of preference for taste, aroma, color and texture which was carried out at the Food Laboratory of the Health Polytechnic of the Ministry of Health of Riau with a total of 25 moderately trained panelists. Measurement of calcium levels. carried out at the Laboratory of Fisheries and Marine Products, University of Riau with the AAS Method. Data analysis was carried out using the one way ANOVA test,  $p < 0.05$ , if a significant difference was found, it was continued with Duncan's test.

Based on the research, it was found that the panelists' most preferred color was fish nugget in the F1 formulation (20% pumpkin flour substitution) while the most preferred taste, texture and aroma was the F2 formulation (30% pumpkin flour substitution). From the results of the research, substitution of pumpkin flour on catfish nuggets  $p < 0.05$ , which has a significant effect on taste, texture and aroma, while the color of catfish nuggets with pumpkin flour substitution has no significant effect. The calcium content of fish nuggets using 30% pumpkin flour substitution is 356.6 mg/100g. The researcher's suggestion from the results of the study is that further research is needed, especially on the durability or shelf life of catfish nuggets and their effect on taste, color, texture and aroma.

**Keywords:** Fish Nugget, Patin Fish, Pumpkin Flour, Preferred Level and Calcium