

# **PENINGKATAN MUTU MI KERING JAGUNG-MOCAF DENGAN FORTIFIKASI TEPUNG AMPAS TAHU DAN KARAGENAN SEBAGAI SUMBER PROTEIN DAN SERAT**

## ***INCREASING THE QUALITY OF DRY CORN-MOCAF NOODLES WITH FORTIFICATION OF TOFU PULP FLOUR AND CARRAGEENAN AS A SOURCE OF PROTEIN AND FIBER***

**Zahro Ikmalia<sup>1)</sup>, Satrijo Saloko<sup>2)</sup>, Siska Cicilia<sup>2)</sup>**

<sup>1)</sup>Mahasiswa Fakultas Teknologi Pangan dan Agroindustri Universitas Mataram

<sup>2)</sup>Staf Pengajar Fakultas Teknologi Pangan dan Agroindustri Universitas Mataram  
Jl. Majapahit No.62 Mataram, 83125, Nusa Tenggara Barat, Indonesia

\*email: [zahroikmalia@gmail.com](mailto:zahroikmalia@gmail.com)

### **ABSTRACT**

*The aim of this study was to determine the effect of the fortification of tofu pulp flour and carrageenan on the quality of dry corn-mocaf noodles. The experimental design used was a completely randomized design (CRD) with 1 factor. The factor used was the formulation of the addition of tofu pulp flour and carrageenan which consisted of six treatments. The treatments included the percentage of corn flour: mocaf: tofu pulp flour: carrageenan, namely P1 (62% : 20% : 14% : 4%); P2 (62% : 20% : 12% : 6%); P3 (62% : 20% : 10% : 8%); P4 (62% : 20% : 8% : 10%); P5 (62% : 20% : 6% : 12%); P6 (62% : 20% : 4% : 14%). Each treatment was repeated three times so that 18 samples were obtained. The measured noodle quality parameters were chemical quality (moisture content, ash content, crude fiber content, and protein content), physical quality (color, cooking time, and cooking loss), and organoleptic quality including taste, aroma, and texture. Observational data were analyzed using analysis of variance with a significant level of 5% using the Co-Stat application. The data that were significantly different were further tested with the Honestly Significant Difference Test (HSD). The results showed that the substitution formulation of tofu pulp flour and carrageenan gave significantly different effect on moisture content, ash content, crude fiber content, protein content, and °Hue value. P3 treatment was the best treatment for dry corn-mocaf noodles with protein content of 9.30%; crude fiber content of 18.93%; moisture content of 8.73% (wb); ash content of 7.61%; and °Hue value of 77.87 with a slightly fishy taste and a slightly preferred aroma.*

**Keywords :** Carrageenan, Dry noodles, Fortification, Tofu pulp flour

### **ABSTRAK**

Penelitian ini bertujuan untuk mengetahui pengaruh fortifikasi tepung ampas tahu dan karagenan terhadap mutu mi kering jagung-mocaf. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan 1 faktor. Faktor yang digunakan yakni formulasi penambahan tepung ampas tahu dan karagenan yang terdiri dari enam perlakuan. Perlakuan meliputi persentase tepung jagung: mocaf: tepung ampas tahu: karagenan yaitu P1 (62% : 20% : 14% : 4%); P2 (62% : 20% : 12% : 6%); P3 (62% : 20% : 10% : 8%); P4 (62% : 20% : 8% : 10%); P5 (62% : 20% : 6% : 12%); P6 (62% : 20% : 4% : 14%). Setiap perlakuan dilakukan tiga ulangan sehingga diperoleh 18 sampel. Parameter mutu mi yang diukur adalah mutu kimia (kadar air, kadar abu, kadar serat kasar, dan kadar protein), mutu fisik (warna, *cooking time*, dan *cooking loss*), serta mutu organoleptik meliputi rasa, aroma, dan tekstur. Data hasil pengamatan diuji dengan analisa keragaman pada taraf 5% menggunakan software Co-Stat. Apabila terdapat beda nyata, dilakukan uji lanjut dengan uji lanjut Beda Nyata Jujur (BNJ). Hasil penelitian menunjukkan bahwa formulasi substitusi tepung ampas tahu dan karagenan memberikan pengaruh yang berbeda nyata terhadap kadar air, kadar abu, kadar serat kasar, kadar protein, nilai °Hue, dan nilai skoring rasa. Perlakuan P3 merupakan perlakuan terbaik mi kering jagung-mocaf dengan kadar protein 9,30%, kadar serat kasar 18,93%; kadar air 8,73% (bb); kadar abu 7,61%; dan nilai °Hue 77,87 dengan rasa agak tidak berasa amis dan aroma yang agak disukai.

**Kata kunci :** Fortifikasi, Karagenan, Mi kering, Tepung ampas tahu