

# **PENGARUH PERLAKUAN FERMENTASI KECIPIR (*Psophocarpus tetragonolobus L.*) DAN KONSENTRASI TEPUNG PORANG TERHADAP SIFAT FISIKOKIMIA DAN SENSORIS MIE JAGUNG INSTAN**

*[THE EFFECT OF FERMENTATION TREATMENT OF WING BEAN (*Psophocarpus tetragonolobus L.*) AND CONCENTRATION OF KONJAC FLOUR ON PHYSICOCHEMICAL AND SENSORY PROPERTIES OF INSTANT CORN NOODLES]*

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## **ABSTRACT**

*Corn noodles are noodles with the main raw material of corn flour. The manufacture of corn noodles has actually been widely researched, but the noodles are still not widely traded. This study aims to determine the effect of fermentation treatment and the concentration of winged bean flour (*psophocarpus tetragonolobus L.*) on the physicochemical and sensory properties of instant corn noodles. The experimental design used was a completely randomized design (CRD) with one factor. Factors carried out were the addition of fermented and non-fermented winged bean flour formulations and konjac flour which consisted of six treatments. The treatments included the percentage of corn flour: mocaf: konjac flour: winged bean flour, namely P1.1 (15% : 0%), P1.2 (10% : 5%), P1.3 (5% : 10%), P2.1 (15% : 0%), P2.2 (10% : 5%), P6 (5% : 10%). Each treatment was repeated three times so that 18 samples were obtained. The measured noodle quality parameters were chemical quality (moisture content, ash content, protein content, crude fiber content), physical quality (color, cooking time, cooking loss, rehydration, elongation) and organoleptic qualities including taste, color, aroma and texture. The effect of fermentation treatment and the concentration of winged bean flour gave significantly different effects on water content, ash content, protein content, crude fiber content, cooking loss, cooking time, rehydration, texture scoring and color both hedonic and scoring. The best treatment was obtained at P2.3 (5% non-fermented winged bean flour: 10% konjac flour) with a water content of 5.96%; ash content 1.48%; Crude fiber content 1.38%; protein content 8.99%; cooking loss 2.89%; cooking time 9.28 minutes; rehydration 9.48 minutes; elongation 12.59%, L value 49.68 and °Hue 74.94.*

**Keywords :** *Instant corn noodles, fermented winged bean flour, non fermented winged bean flour, konjac flour*

## **ABSTRAK**

Mie jagung merupakan mie dengan bahan baku utama tepung jagung. Pembuatan mie jagung sebenarnya telah banyak diteliti, tetapi mie tersebut masih belum banyak diperdagangkan. Penelitian ini bertujuan untuk mengetahui pengaruh perlakuan fermentasi dan konsentrasi tepung biji kecipir (*psophocarpus tetragonolobus L.*) terhadap sifat fisikokimia dan sensoris mie jagung instan. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan satu faktor. Faktor yang dilakukan yakni formulasi penambahan tepung biji kecipir fermentasi dan non fermentasi serta tepung porang yang terdiri dari enam perlakuan. Perlakuan meliputi persentase tepung jagung: mocaf: tepung porang: tepung kecipir yaitu P1.1 (15% : 0%), P1.2 (10% : 5%), P1.3 (5% : 10%), P2.1 (15% : 0%), P2.2 (10% : 5%), P6 (5% : 10%). Setiap perlakuan dilakukan tiga ulangan sehingga diperoleh 18 sampel. Parameter mutu mie yang diukur adalah mutu kimia (kadar air, kadar abu, kadar protein, kadar serat kasar), mutu fisik (warna, *cooking time*, *cooking*

*loss*, rehidrasi, elongasi) serta mutu organoleptik meliputi rasa, warna, aroma dan tekstur. Pengaruh perlakuan fermentasi dan konsentrasi tepung biji kecipir memberikan pengaruh yang berbeda nyata terhadap kadar air, kadar abu, kadar protein, kadar serat kasar, *cooking loss*, *cooking time*, rehidrasi, tekstur secara skoring dan warna baik secara hedonik dan skoring. Perlakuan terbaik diperoleh pada perlakuan P2.3 (5% Tepung kecipir non fermentasi : 10% Tepung porang) dengan hasil kadar air 5,96%; kadar abu 1,48%; Kadar serat kasar 1,38%; kadar protein 8,99%; *cooking loss* 2,89%; *cooking time* 9,28 menit; rehidrasi 9,48 menit elongasi 12,59%, Nilai L 49,68 dan °Hue 74,94.

**Kata Kunci** : Mie jagung instant, Tepung kecipir fermentasi, Tepung kecipir non fermentasi, Tepung porang