PENGARUH TEKNIK DAN LAMA PRAGELATINISASI TERHADAP MUTU MIE JAGUNG INSTAN

The Effect of Techniques and Pragelatinization Duration Towards the Quality of Instant Corn Noodle

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ABSTRACT

This study was aimed to find out the effect of techniques and pragelatinization duration towards the quality of instant corn noodle. The design used was a completely randomized 2-factor design (crd). Where the first factor was the pragelatinization technique and the second factor was the pragelatinization duration. In the first factor, there ware 2 pragelatinization techniques used, namely pragelatinization by ordinary steaming and pragelatinization by pressurized steaming and the second factor was the pragelatinization duration of 5 minutes, 15 minutes and 25 minutes, which was repeated 3 times and resulted 18 samples. The parameters included water content, protein content, ash content, fat content, fiber content, carbohydrate content, cooking loss value, cooking time, elongation and color. While the organoleptic parameters included the aroma, taste, and the texture of corn noodles. The data from observations ware tested with diversity analysis at 5% significance level using co-stat software. When observation resulted a significant difference, it was then conveyed using the honest significant difference test (BNJ). The best treatment was obtained in the pragelatinization technique using pressure cooker with 15 minutes pragelatinization time with a water content of 4.60%, protein content of 12.29%, ash content of 1.04%, crude fat content of 3.32%, crude fiber content of 11.67%, carbohydrate content of 78.58%, value of cooking loss of 4.28%, cooking time of 12.33% and corn noodle elongation of 36.66% with a yellow color, slightly smells and taste like corn with a slightly chewy texture.

Keywords*: corn noodles, pragelatinization, pressure cooker, quality*

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh teknik dan lama pragelatinisasi terhadap mutu mie jagung instan. Rancangan yang digunakan adalah Rancangan Acak Lengkap (RAL) 2 faktor. Dimana faktor pertama adalah teknik pragelatinisasi dan faktor kedua adalah lama pragelatinisasi. Faktor pertama ada 2 teknik pragelatinisasi yang digunakan yaitu pragelatinisasi dengan pengukusan biasa dan pragelatinisasi dengan pengukusan bertekanan dan faktor kedua yaitu lama pragelatinisasi 5 menit, 15 menit dan 25 menit yang dilakukan pengulangan sebanyak 3 kali ulangan sehingga diperoleh 18 unit percobaan. Parameter yang diamati meliputi kadar air, kadar protein, kadar abu, kadar lemak, kadar serat, kadar karbohidrat, nilai *cooking loss,cooking time,* elongaasi dan warna serta parameter organoleptik berupa aroma, rasa, dan tekstur mie jagung. Data hasil pengamatan diuji dengan analisis keragaman pada taraf nyata 5% menggunakan *software Co-Stat*. Apabila hasil pengamatan terdapat perbedaan yang nyata, maka diuji lanjut menggunakan uji Beda Nyata Jujur (BNJ). Perlakuan terbaik diperoleh pada teknik pragelatinisasi dengan pengukusan bertekanan (*pressure cooker)* dengan lama pragelatinisasi 15 menit dengan kandungan kadar air 4,60%, kadar protein 12,29%, kadar abu 1,04%, kadar lemak kasar 3,32%, kadar serat kasar 11,67%, kadar karbohidrat 78,58%, nilai *cooking loss* 4,28%, *cooking time* 12,33% dan elongaasi mie jagung 36,66% dengan warna kuning, agak beraroma dan berasa jagung dengan tekstur agak kenyal.

Kata Kunci*:* Pragelatinisasi, *pressure cooker*, mie jagung, mutu