

**KARAKTERISTIK FISIKOKIMIA DAN SIFAT FUNGSIONAL
TEPUNG SAGU, TEPUNG KOLANG-KALING, DAN TEPUNG
BUAH NIPAH SERTA APLIKASINYA PADA BOLU KOJA**

HERU ALDI NASUTION

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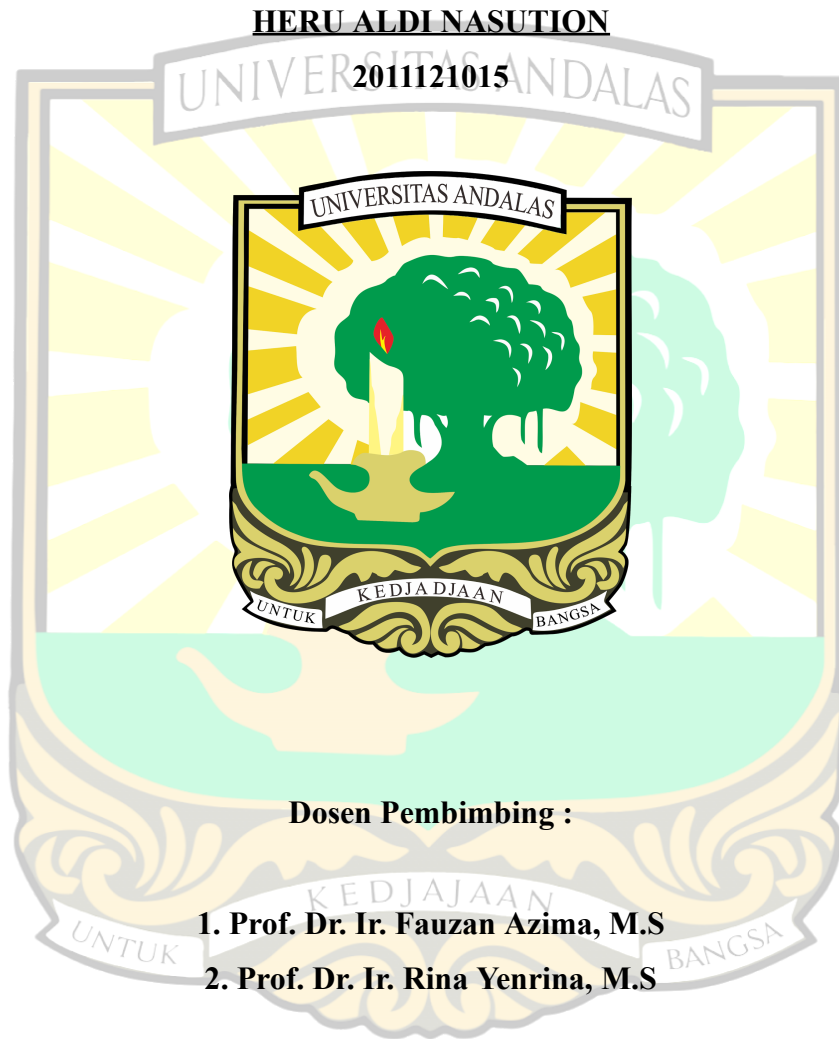


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Karakteristik Fisikokimia dan Sifat Fungsional Tepung Sagu, Tepung Kolang-kaling, dan Tepung Buah Nipah Serta Aplikasinya pada Bolu Koja

Heru Aldi Nasution, Fauzan Azima, Rina Yenrina

ABSTRAK

Penelitian ini bertujuan untuk mengkarakterisasi fisikokimia dan sifat fungsional tepung sagu, tepung kolang-kaling, dan tepung buah nipah serta mengetahui aplikasinya pada bolu koja. Metode yang digunakan dalam penelitian ini adalah eksploratif. Data akan disajikan dalam bentuk kuantitatif. Perlakuan pada bolu koja meliputi perlakuan A (100% terigu), B (70% terigu : 30% sagu), C (70% terigu : 30% nipah) dan D (70% terigu : 30% kolang-kaling). Hasil analisis fisik yaitu rendemen tertinggi tepung sagu sebesar 32,12% dan terendah tepung kolang-kaling sebesar 10,39%. Tingkat kehalusan tertinggi yaitu 96,01% tepung sagu dan terendah yaitu 12,02% tepung kolang-kaling, nilai warna 95,65 tepung sagu, 101,90 tepung nipah, 71,49 tepung kolang-kaling dan derajat putih tertinggi adalah tepung sagu sebesar 92,01 dan terendah 71,11 tepung kolang-kaling. Hasil analisis kimia tepung sagu, tepung nipah, dan tepung kolang-kaling yaitu kadar air 10,79%; 6,17%; 8,10%, kadar abu 0,32%; 2,56%; 1,28%, kadar lemak 0,26%; 1,07%; 1,85%, kadar protein 0,23%; 2,60%; 1,23%, dan kadar serat kasar 0,09%; 23,79%; 8,88%. Hasil analisis sifat fungsional tepung sagu, tepung nipah, dan tepung kolang-kaling yakni daya serap air 0,59 ml/g; 2,79 ml/g; 4,54 ml/g, daya serap minyak 2,76 ml/g; 2,63 ml/g; 2,92 ml/g, rata-rata *swelling power* 2,15 g/g, 5,73 g/g, dan 12,89 g/g, rata-rata *solubility* 1,79%, 3,89%, dan 10,86%. Viskositas tepung sagu sebesar 2.060 cP, tepung nipah 125 cP, dan tepung kolang-kaling sebesar 16.150 cP. Bolu koja terbaik didapatkan dari perlakuan C (70% terigu : 30% nipah) dengan rata-rata nilai warna 4,16 (suka), nilai rasa 4,16 (suka), nilai aroma 4,04 (suka), nilai tekstur 4,08 (suka), serta nilai kekerasan sebesar 36.63 N/cm².

Kata Kunci : bolu koja, kolang-kaling, nipah, sagu

Physicochemical Characteristics and Functional Properties of Sago Flour, Kolang-Kaling Flour, and Nipah Fruit Flour and Their Application in Koja Cake

Heru Aldi Nasution, Fauzan Azima, Rina Yenrina

ABSTRACT

This study aims to characterize the physicochemical and functional properties of sago flour, palm fruit flour, and nipah fruit flour, as well as to explore their application in bolu koja. The method used in this research is exploratory, and the data will be presented in quantitative form. The treatments for the bolu koja include treatment A (100% wheat flour), B (70% wheat flour: 30% sago), C (70% wheat flour: 30% nipah), and D (70% wheat flour: 30% palm fruit). The results of the physical analysis show that the highest yield is sago flour (32.12%) and the lowest yield is palm fruit flour (10.39%). The highest fineness is 96.01% for sago flour, and the lowest is 12.02% for palm fruit flour. The color values are 95.65 for sago flour, 101.90 for nipah flour, and 71.49 for palm fruit flour. The highest whiteness degree is 92.01 for sago flour, and the lowest is 71.11 for palm fruit flour. The chemical analysis of sago flour, nipah flour, and palm fruit flour shows the following contents: moisture content 10.79%, 6.17%, and 8.10%; ash content 0.32%, 2.56%, and 1.28%; fat content 0.26%, 1.07%, and 1.85%; protein content 0.23%, 2.60%, and 1.23%; and crude fiber content 0.09%, 23.79%, and 8.88%. The results of the functional properties analysis for sago flour, nipah flour, and palm fruit flour are as follows: water absorption capacity 0.59 ml/g, 2.79 ml/g, and 4.54 ml/g; oil absorption capacity 2.76 ml/g, 2.63 ml/g, and 2.92 ml/g; average swelling power 2.15 g/g, 5.73 g/g, and 12.89 g/g; average solubility 1.79%, 3.89%, and 10.86%. The viscosity for sago flour is 2,060 cP, for nipah flour is 125 cP, and for palm fruit flour is 16,150 cP. The best bolu koja was obtained from treatment C (70% wheat flour: 30% nipah) with average values for color (4.16, like), taste (4.16, like), aroma (4.04, like), texture (4.08, like), and hardness (36.63 N/cm²).

Keywords : koja cake, kolang-kaling, nipah, sago