

ABSTRACT

EFFECT OF THICKNESS AND DRYING TIME ON THE SENSORICAL, PHYSICAL AND CHEMICAL PROPERTIES OF CASSAVA FLOUR (*Manihot esculenta Crantz*) OPAK

By

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Cassava (*Manihot Esculenta*) is one of the potential tuber, this investigated the use of cassava flour as a raw material for making opak to replace the fresh cassava.. The purpose of this study was to determine the thickness and duration of drying in the manufacture of cassava flour opak which produces the best sensory, physical and chemical properties. The research was arranged in a factorial Complete Randomized Block Design (RAKL) with three replications. The first factor is the thickness (K) which consists of four levels, namely (K1) 0.5 mm, (K2) 1 mm, (K3) 1.5 mm, and (K4) 2 mm. The second factor is the drying time (P) which consisted of three levels, namely (P1) 1 hour, (P2) 2 hours, and (P3) 3 hours. The data obtained were tested their homogeneity using the Bartlett test and the addition of the model was tested by the Tuckey test. The data were analyzed by means of variance to determine the effect of treatment on the observed parameters then continued with DMRT test at 5% level of signiificance. The results showed that there was an interaction effect between thickness and duration of drying on the best cassava flour opak, namely 1 mm thickness with 3 hours drying time with color characteristics 1.40 (brownish yellow), texture 4.02 (crispy), flavour 3.2 (slightly typical of cassava), the bulk density was 0.59 g / mL, the water absorption capacity was 5.49%, and the oil absorption capacity was 0.03 g / g, the water content was 0.20%, the ash content was 2.89%, the protein content was 1, 26, 27.12% fat content, and 68.51% carbohydrates.

Key words: cassava flour, drying time, opak, thickness

ABSTRAK

PENGARUH KETEBALAN DAN LAMA PENGERINGAN TERHADAP SIFAT SENSORI, FISIK DAN KIMIA OPAK TEPUNG UBI KAYU (*Manihot esculenta crantz*)

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Ubi kayu (*Manihot esculenta*) merupakan salah satu jenis umbi-umbian yang potensial, penelitian ini mencoba mengganti bahan baku segar dengan tepung ubi kayu sebagai bahan baku pembuatan opak. Tujuan dari penelitian ini adalah untuk mengetahui ketebalan dan lama pengeringan dalam pembuatan opak tepung ubi kayu yang menghasilkan sifat sensori, fisik dan kimia terbaik. Penelitian disusun dalam Rancangan Acak Kelompok Lengkap (RAKL) faktorial dengan tiga ulangan. Faktor pertama adalah ketebalan (K) yang terdiri dari empat taraf yaitu (K1) 0,5 mm, (K2) 1 mm, (K3) 1,5 mm, dan (K4) 2 mm. Faktor kedua adalah lama pengeringan (P) yang terdiri dari tiga taraf yaitu (P1) 1 jam, (P2) 2 jam, dan (P3) 3 jam. Data yang diperoleh diuji dengan Uji Bartlett dan kementerian model diuji dengan Uji Tuckey. Data dianalisis dengan sidik ragam untuk mengetahui pengaruh perlakuan terhadap parameter yang diamati dan dilakukan uji lanjut DMRT pada taraf 5%. Hasil penelitian menunjukkan bahwa terdapat pengaruh interaksi yang nyata antara ketebalan dan lama pengeringan terhadap opak tepung ubi kayu terbaik yaitu ketebalan 1 mm dengan lama pengeringan 3 jam dengan karakteristik warna 1,40 (kuning kecoklatan), tekstur 4,02 (renyah), *flavour* 3,2 (agak khas singkong), densitas kamba 0,59 g/mL, daya serap air 5,49%, dan daya serap minyak 0,03 g/g, kadar air 0,20%, kadar abu 2,89%, kadar protein 1,26, kadar lemak 27,12%, dan karbohidrat 68,51%.

Kata kunci : ketebalan, lama pengeringan, opak, tepung ubi kayu