ABSTRACT

SUBSTITUTION OF FERMENTED CASSAVA BAGASSE FLOUR ON WHEAT FLOUR IN DRY NOODLE PROCESSING

BY

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Fermented cassava bagasse flour contains 46.69% starch, 13.49% dietary fiber and 6.98% protein and has the potential to be used as a food raw material. This study aims to determine the effect of substitution of fermented cassava flour to wheat flour on water content, acid insoluble ash content and sensory properties of dry noodles and to obtain dry noodles with the best chemical and sensory properties. Fermented cassava bagasse flour was substituted to flour with the following ratio of wheat P0 as control (0%:100%), P1 (5%:95%), P2 (10%:90%), P3 (15%:85%), P4 (20%:80%), (25%:75%). The dry noodles were analyzed for water content and acid insoluble ash content, and sensory parameters such as color, texture, aroma, taste and overall acceptance were observed. Data were analyzed by ANOVA and with a further test of 5% HSD test. The best treatment of dry noodles was continued with analysis of protein content and dietary fiber content. The results showed that dry noodles with 5%:95% fermented cassava bagasse flour substitution had characteristics preferred by panelists with a color score of 3.77 (yellowish), texture 3.69 (like), taste 3.86 (like), aroma 3.90 (like), overall acceptance 4.01 (like), containing water content of 8.26%, acid insoluble ash content of 0.094%, protein content of 4.61% and dietary fiber of 7.63%. Substitution of fermented cassava flour affected the color, texture, taste, aroma and overall acceptance, water content and acid insoluble ash content of dry noodles. Substitution of fermented cassava bagasse flour also increased the dietary fiber content of dry noodles which showed potential as a high-fiber food raw material.

***Keywords**: dry noodles, sensory properties, fermented cassava bagasse flour, dietary fiber content*

ABSTRAK

SUBSTITUSI TEPUNG ONGGOK TERFERMENTASI TERHADAP TEPUNG TERIGU PADA PEMBUATAN MI KERING

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Tepung onggok terfermentasi mengandung pari 46,69%, serat pangan 13,49% dan protein 6,98% dan memiliki potensi untuk dimanfaatkan sebagai bahan baku pangan. Penelitian ini bertujuan untuk mengetahui pengaruh substitusi tepung onggok terfermentasi terhadap tepung terigu pada kadar air, kadar abu tak larut asam dan sifat sensori mi kering serta mendapatkan mi kering dengan sifat kimia dan sensori terbaik. Tepung onggok terfermentasi disubstitusikan terhadap tepung terigu dengan perbandingan sebagai berikut P0 sebagai kontrol (0%:100%), P1 (5%:95%), P2 (10%:90%), P3 (15%:85%), P4 (20%:80%), (25%:75%). Mi kering yang diperoleh dianalisis kadar air dan kadar abu tak larut asam, dan diamati parameter sensori berupa warna, tekstur, aroma, rasa dan penerimaan secara keseluruhan. Data dianalisis dengan ANOVA dan dengan uji lanjut BNJ 5%. Perlakuan terbaik mi kering dilanjutkan dengan analisis kadar protein dan kadar serat pangan. Hasil penelitian menunjukkan bahwa mi kering dengan substitusi tepung onggok terfermentasi 5%:95% memiliki karakteristik yang disukai oleh panelis dengan skor warna 3,77 (kekuningan), tekstur 3,69 (suka), rasa 3,86 (suka), aroma 3,90 (suka), penerimaan keseluruhan 4,01 (suka), mengandung kadar air 8,26% kadar abu tak larut asam 0,094%, kadar protein 4,61% dan serat pangan 7,63%. Subsitusi tepung onggok terfermentasi memberikan pengaruh terhadap warna, tekstur, rasa, aroma dan penerimaan keseluuruhan, kadar air dan kadar abu tak larut asam pada mi kering. Substitusi tepung onggok terfermentasi juga meningkatkan kandungan serat pangan mi kering yang menunjukkan potensi sebagai bahan baku pangan tinggi serat.

***Kata kunci**: mi kering, sifat sensori, tepung onggok terfermentasi, kadar serat pangan*