

ABSTRAK

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PEMANFAATAN UMBI KIMPUL PUTIH DAN KUNING (*Xanthosoma sagittifolium* (L.) Schott.) SEBAGAI PENSUBSTITUSI TERIGU PADA MI KERING

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(vi + 50 halaman; 12 gambar; 9 tabel; 13 lampiran)

Umbi kimpul masih kurang dimanfaatkan dalam pembuatan mi kering padahal mengandung karbohidrat yang tinggi dan dapat dimanfaatkan sebagai pensubstitusi tepung terigu. Penelitian bertujuan untuk menentukan jenis tepung kimpul berdasarkan komposisi kimia antara lain kadar air, kadar abu, kadar protein, kadar lemak, kadar karbohidrat, dan kadar total serat; menentukan rasio tepung terigu dan tepung kimpul putih terbaik pada mi kering berdasarkan, *water absorbtion*, *cooking yield*, kadar total serat, kadar air, dan kadar lemak; menentukan rasio tepung terigu dan tepung kimpul kuning terbaik pada mi kering berdasarkan, *water absorbtion*, *cooking yield*, kadar total serat, kadar air, dan kadar lemak. Tepung dari kimpul putih dan kimpul kuning dianalisis kadar air, kadar abu, kadar protein, kadar lemak, kadar karbohidrat, dan kadar total serat. Faktor yang diuji dalam pembuatan mi kering adalah rasio tepung terigu dan tepung kimpul putih atau kuning (100:0, 90:10, 80:20, 70:30, 60:40, 50:50). Mi kering rasio tepung terigu:tepung kimpul dianalisis *water absorbtion*, *cooking yield*, kadar total serat, kadar air, dan kadar lemak. Hasil penelitian menunjukkan tepung kimpul putih memiliki kadar air sebesar $0,79 \pm 0,46\%$, kadar abu sebesar $2,77 \pm 0,86\%$, kadar protein sebesar $1,87 \pm 0,06\%$, kadar lemak sebesar $1,89 \pm 0,68\%$, kadar karbohidrat sebesar $93,03 \pm 1,31\%$, dan kadar total serat sebesar $3,23 \pm 0,72\%$. Tepung kimpul kuning memiliki kadar air sebesar $1,04 \pm 0,56\%$, kadar abu sebesar $2,23 \pm 0,63\%$, kadar protein sebesar $1,82 \pm 0,05\%$, kadar lemak sebesar $2,01 \pm 0,31\%$, kadar karbohidrat sebesar $92,92 \pm 0,4\%$, dan kadar total serat sebesar $3,19 \pm 0,33\%$. Tepung kimpul terbaik berdasarkan kadar air, kadar abu, kadar lemak, kadar protein, kadar total serat, dan kadar karbohidrat adalah tepung kimpul putih. Rasio tepung terigu dan tepung kimpul putih terbaik pada mi kering berdasarkan *water absorbtion*, *cooking yield*, kadar total serat, kadar air, dan kadar lemak yaitu 50:50. Adapun rasio tepung terigu dan tepung kimpul kuning terbaik pada mi kering berdasarkan *water absorbtion*, *cooking yield*, kadar total serat, kadar air, dan kadar lemak yaitu 50:50%.

Kata kunci : Kimpul, mi kering, substitusi, *water absorbtion*
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ABSTRACT

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UTILIZATION OF WHITE AND YELLOW COCOYAM TUBER (*Xanthosoma sagittifolium* (L.) Schott.) AS A SUBSTITUTE FOR WHEAT FLOUR IN DRIED NOODLES

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(vi + 50 pages; 12 images; 9 tables; 13 appendices)

The cocoyam tuber is still underutilized in the production of dry noodles, even though it contains high carbohydrates and can be used as a substitute for wheat flour. This study aims to determine the type of cocoyam flour based on its chemical composition, including moisture content, ash content, protein content, fat content, carbohydrate content, and total fiber content; to determine the best ratio of wheat flour and white cocoyam flour in dry noodles based on water absorbtion, cooking yield, total fiber content, moisture content, and fat content; and to determine the best ratio of wheat flour and yellow cocoyam flour in dry noodles based on water absorbtion, cooking yield, total fiber content, moisture content, and fat content. The flours from both white and yellow cocoyam were analyzed for moisture content, ash content, protein content, fat content, carbohydrate content, and total fiber content. The factors tested in dry noodle production included the ratio of wheat flour to white or yellow cocoyam flour (100:0, 90:10, 80:20, 70:30, 60:40, 50:50). The dry noodles with various ratios of wheat flour to cocoyam flour were analyzed for water absorbtion, cooking yield, total fiber content, moisture content, and fat content. The results showed that white cocoyam flour had a moisture content of $0.79\pm0.46\%$, ash content of $2.77\pm0.86\%$, protein content of $1.87\pm0.06\%$, fat content of $1.89\pm0.68\%$, carbohydrate content of $93.03\pm1.31\%$, and total fiber content of $3.23\pm0.72\%$. Yellow cocoyam flour had a moisture content of $1.04\pm0.56\%$, ash content of $2.23\pm0.63\%$, protein content of $1.82\pm0.05\%$, fat content of $2.01\pm0.31\%$, carbohydrate content of $92.92\pm0.4\%$, and total fiber content of $3.19\pm0.33\%$. The best cocoyam flour based on moisture content, ash content, fat content, protein content, total fiber content, and carbohydrate content is white cocoyam flour. The best ratio of wheat flour and white cocoyam flour for dry noodles, based on water absorption, cooking yield, total fiber content, moisture content, and fat content, is 50:50. Meanwhile, the best ratio of wheat flour and yellow cocoyam flour for dry noodles, based on water absorption, cooking yield, total fiber content, moisture content, and fat content, is also 50:50 %.

Keywords : cocoyam, water absorbtion, dried noodles, substitution

References : 51 (2014-2024)