RINGKASAN

Salah satu usaha diversifikasi pengolahan ubi kayu yang saat ini sedang dikembangkan adalah tepung mocaf (*modified cassava flour*). Pada umumnya pembuatan tepung mocaf menggunakan metode fermentasi. Pada penelitian ini dicoba pembuatan tepung mocaf menggunakan berbagai bahan perendam dan lama perendaman untuk mengetahui pengaruhnya terhadap sifat kimia dan fisikokimia. Penelitian ini bertujuan untuk: 1) mengetahui pengaruh jenis bahan perendam terhadap sifat kimia dan fisikokimia tepung mocaf; 2) menetapkan lama perendaman yang sesuai untuk menghasilkan tepung mocaf dengan sifat kimia dan fisikokimia yang baik; 3) menentukan unit kombinasi perlakuan terbaik berdasarkan sifat kimia dan fisikokimia tepung mocaf.

Penelitian ini menggunakan metode eksperimental Rancangan Acak Kelompok (RAK) yang disusun secara faktorial. Perlakuan yang dicoba dalam penelitian ini terdiri atas 2 faktor, jenis bahan perendam (P) terdiri atas P0 (kontrol perendaman) = H_2O; P_1 = Larutan NaCl 3%; P_2 = Larutan Ragi Tape 4%; P_3 = Larutan $NaHCO_3$ pH 9; P_4 = Larutan NaOH pH 9 dan lama perendaman (L) terdiri atas L_1 = 2 jam; L_2 = 4 jam; L_3 = 6 jam. Dengan demikian diperoleh 15 kombinasi perlakuan dan diulang sebanyak 3 kali sehingga diperoleh 45 unit percobaan.

Hasil penelitian menunjukkan bahwa perlakuan terbaik adalah tepung ubi kayu P2L3 (perendaman larutan ragi tape 4% dengan lama perendaman 6 jam). Tepung yang dihasilkan mempunyai kadar air 5,78%; kadar abu 0,32 %bb (0,34 %bk); kadar total asam tertitrasi 0,011 %bb (0,012 %bk); kadar total padatan terlarut 25,27 %bb (26,83 %bk); densitas kamba 0,974 g/ml; koefisien rehidrasi 5,52; derajat putih 82,27; kekentalan relatif 293 detik/10 ml. Kadar protein total dan lemak tepung ubi kayu modifikasi P2L3 masing-masing sebesar 0,64 %bb (0,68 %bk); 0,55 %bb (0,59 %bk), sedangkan kadar karbohidrat *by difference* tepung ubi kayu hasil modifikasi perlakuan P2L3 yaitu 92,71 %bb (98,39 %bk).

SUMMARY

One of the diversified cassava processing that currently being developed is mocaf (modified cassava flour). In general, the manufacture of mocaf using fermentation methods. In this research attempted manufacture of mocaf flour using a variety of soaking solutions and soaking time to determine its effect on the chemical and physicochemical properties. This research aims to: 1) determine the effect of the soaking solutions to the chemical and physicochemical properties of mocaf; 2) establish an appropriate soaking time to produce mocaf with good chemical and physicochemical properties; 3) determine the best treatment combination unit based on the chemical and physicochemical properties of mocaf flour.

This research used experimental method Randomized Complete Block Design arranged as factorial. The treatment attempted in this research consisted of two factors i.e. the type of soaking solutions (P) consisted of P0 (control) = H_2O; P1 = 3% NaCl solution; P2 = 4% ragi tape solution; P3 = $NaHCO_3$ solution pH 9; P4 = NaOH solution pH 9 and soaking time (L) consisted of L1 = 2 hours; L2 = 4 hours; L3 = 6 hours. Thus obtained 15 combinations of treatment and repeated 3 times to obtain 45 experimental units.

The results showed that the best treatment was cassava flour P2L3 (soaking solution of ragi tape 4%; 6 hours soaking time). Flour produced had a water content of 5.78%; ash content of 0.32% wb (0.34% db); total acid content of 0.011% wb (0.012% db); total dissolved solids 25.27% wb (26.83% db); bulk density 0.974 g / ml; rehydration coefficient of 5.52; White degrees of 82.27; and the relative viscosity of 293 sec/10 ml. Protein content and fat content of P2L3 flour were of 0,64 %wb (0.68% db); and 0.55% wb (0.59 %db) respectively, while the carbohydrate content (by difference) was 92.71% wb (98.39 %db).