

ABSTRAK

Penelitian ini bertujuan untuk menentukan formula bahan optimal pada pembuatan tepung komposit yang terdiri dari tepung mocaf, tepung ampas tahu dan tepung ganyong dengan menggunakan program linier sehingga menghasilkan tepung komposit dengan harga ekonomis dan mengandung komposisi gizi yang sesuai standar.

Pada penelitian dilakukan penentuan optimalisasi formula tepung komposit menggunakan program linier. Setiap formula yang optimal dilakukan pengujian respon fisik seperti daya serap air, derajat putih, dan swelling power, respon kimia meliputi kadar protein, kadar lemak dan kadar serat kasar serta uji organoleptik terhadap atribut warna dan aroma. Tepung komposit formula optimal diaplikasikan menjadi produk cookies dan dilakukan uji hedonic terhadap warna, aroma, rasa dan tekstur cookies.

Hasil penelitian adalah dari tiga formulasi *feasible*, tepung komposit formula III dengan konsentrasi tepung ampas tahu sebesar 30%, tepung mocaf limbah singkong 55% dan tepung ganyong 15% dengan biaya terendah sebesar Rp 905.85,- per 150 gram dan berdasarkan neraca bahan mengandung kadar protein 9.78 %, lemak 1.83 % dan serat kasar 12.55 %. Berdasarkan uji hedonic tepung komposit formula III lebih disukai dari segi aroma tepung. Berdasarkan aplikasi tepung komposit pada pembuatan *cookies* menunjukkan bahwa *cookies* formula III lebih disukai dari atribut aroma, rasa dan tekstur *cookies*.

Kata kunci : TepungKomposit, Program Linier, Cookies, Tepung, Ampas Tahu, Mocaf, Kulit Singkong, Tepung Ganyong

ABSTRACT

Aim of this study was to determine the optimal formula ingredients in the manufacture of composite flour consisting of mocaf flour, tofu pulp flour and canna flour using linear programming resulting composite flour that has the economical price and contains nutrient composition according to the standard.

The research that have been done to determination of the optimization of composite flour formula using llinier program. Each optimal formulation of composit flour conducted water absorption, whiteness, and swelling power, chemical responses include the levels of protein, fat and fiber content as well as the organoleptic attributes of color and aroma. Optimal formulation of composite flour applied to products made cookies and hedonic test for color, aroma, flavor and texture of cookies.

The results of research is of three formulations feasible, composite flour forrnula III with a concentration of tofu pulp flour by 30%, mocaf flour from cassava waste 55% and canna flour 15% with the lowest cost of Rp 905.85, - per 150 grams and is based on the balance of materials containing protein content of 9.78%, 1.83% fat and fiber 12.55%. Based on the hedonic test composite flour formula III are preferred in terms of aroma flour. Based application in the manufacture of composite flour cookies showed that the cookies formula III preferably from attributes of aroma, flavor and texture of cookies.

Keywords: Flour Composites, Linear Program, Cookies, Flour, Tofu Pulp, Mocaf Flour, Canna Flour