

ABSTRAK

Tiffany Nita Karina Ginting: *Daya Terima dan Kandungan Gizi Flakes Tepung Beras Merah dan Tepung Kelapa Sebagai Pangan Sumber Serat*. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2025

Rendahnya konsumsi pangan sumber serat pada masyarakat Indonesia dapat mengakibatkan risiko penyakit kronis. Kelapa sebagai salah satu pangan sumber serat dan bahan pangan lokal yang melimpah, masih terbatas pemanfaatannya. Salah satu inovasi pengolahannya adalah dengan mengubah kelapa menjadi tepung sebagai alternatif pengganti tepung terigu dalam pembuatan flakes. Penambahan tepung beras merah digunakan untuk meningkatkan tekstur renyah flakes. Tujuan dari penelitian ini adalah untuk mengetahui formulasi, daya terima sensori, serta karakteristik fisik dan kimia flakes tepung beras merah dan tepung kelapa.

Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 2 pengulangan pembuatan flakes. Perlakuannya adalah F1 (tepung beras merah 100%), F2 (tepung beras merah 75% : tepung kelapa 25%), F3 (tepung beras merah 50% : tepung kelapa 50%), dan F4 (tepung beras merah 25% : tepung kelapa 75%). Pembuatan tepung beras merah dan tepung kelapa menggunakan metode pengeringan dengan *dehydrator* dan pembuatan flakes menggunakan metode oven. Penelitian ini dilakukan di laboratorium Gizi Universitas Negeri Medan mulai Juni-Juli 2025. Data hasil penelitian dianalisis dengan ANOVA dan uji lanjut *Duncan's Multiple Range Test* (DNMRT) pada taraf 5%. Selanjutnya dilakukan uji Indeks Efektivitas De Garmo untuk menentukan formula terpilih.

Berdasarkan hasil uji organoleptik tingkat kesukaan panelis terhadap warna berkisar antara 3.50-3.57 (agak suka), aroma berkisar antara 3.67-4.05 (agak suka-suka), rasa berkisar antara 2.65-3.90 (tidak suka-agak suka), tekstur berkisar antara 2.43-4.13 (tidak suka-suka), dan keseluruhan berkisar antara 3.05-4.17 (agak suka-suka). Karakteristik kimia pada flakes yaitu kadar air berkisar antara 1.80-9.32%, kadar abu berkisar antara 2.04-2.88%, kadar protein 4.98-8.02%, kadar lemak 2.89-7.77%, kadar karbohidrat 76.89-83.40%, dan kadar serat pangan berkisar antara 6.35-54.08%. Karakteristik fisik pada flakes yaitu daya serap air berkisar antara 283.81-506.39% dan ketahanan kerenyahan dalam susu berkisar antara 0.23-10.11 menit. Perlakuan terbaik berdasarkan uji Indeks Efektivitas De Garmo terdapat pada formula F2 (tepung beras merah 75% : tepung kelapa 25%).

Kata Kunci : Tepung kelapa, Serat pangan, Flakes, Tepung beras merah

ABSTRACT

Tiffany Nita Karina Ginting: Acceptability and Nutritional Content of Red Rice Flour and Coconut Flour Flakes as a Source of Dietary Fiber. Thesis. Faculty of Engineering, University of Medan. 2025

Low consumption of fiber-rich foods among Indonesians can lead to chronic diseases. Coconut, as a source of fiber and an abundant local food, is still underutilized. One innovation in its processing is to convert coconut into flour as an alternative to wheat flour in the production of flakes. The addition of red rice flour is used to enhance the crispy texture of the flakes. The objective of this study is to determine the formulation, sensory acceptability, as well as the physical and chemical characteristics of red rice flour and coconut flour flakes.

This study employed a Completely Randomized Design (CRD) with 4 treatments and 2 replications in flake production. The treatments were F1 (100% red rice flour), F2 (75% red rice flour : 25% coconut flour), F3 (50% red rice flour : 50% coconut flour), and F4 (25% red rice flour : 75% coconut flour). The red rice flour and coconut flour were produced using a dehydrator drying method, and the flakes were produced using an oven method. This study was conducted at the Nutrition Laboratory of the University of North Sumatra from June to July 2025. The research data were analyzed using ANOVA and Duncan's Multiple Range Test (DNMRT) at a 5% significance level. Next, the De Garmo Effectiveness Index test was conducted to determine the selected formula.

Based on the organoleptic test results, the panelists' preference levels for color ranged from 3.50 to 3.57 (somewhat liked), aroma ranged from 3.67 to 4.05 (somewhat liked to liked), taste ranged from 2.65 to 3.90 (did not like to somewhat liked), texture ranged from 2.43 to 4.13 (dislike-like), and overall between 3.05-4.17 (somewhat like-like). The chemical characteristics of the flakes are as follows: moisture content ranging from 1.80-9.32%, ash content ranging from 2.04-2.88%, protein content ranging from 4.98 to 8.02%, fat content ranging from 2.89 to 7.77%, carbohydrate content ranging from 76.89 to 83.40%, and dietary fiber content ranging from 6.35 to 54.08%. The physical characteristics of the flakes include water absorption ranging from 283.81-506.39% and crispness retention in milk ranging from 0.23-10.11 minutes. The best treatment based on the De Garmo Effectiveness Index test was found in formula F2 (75% brown rice flour : 25% coconut flour).

Keywords: Coconut flour, Dietary fiber, Flakes, Red rice flour