

## ABSTRAK

**Ersa Angeli Saragih (5183540020) : Daya Terima dan Kandungan Gizi Cookies Dengan Variasi Penambahan Tepung Tempe Dan Tepung Bayam Hijau Sebagai Pemenuhan Kebutuhan Gizi Remaja Putri. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2023**

Penelitian ini bertujuan untuk 1). Mengetahui daya terima *cookies* terhadap warna, aroma, tekstur dan rasa 2). Mengetahui kandungan gizi *cookies* (kandungan gizi (kadar abu, kadar air, kadar lemak, kadar protein, kadar karbohidrat, kadar serat, dan zat besi)

Desain penelitian yang digunakan adalah penelitian eksperimen dengan metode Rancangan Acak Lengkap (RAL), dengan faktor tunggal yaitu persentase tepung tempe dan tepung bayam yang dilakukan dengan 4 perlakuan yaitu P1 = 0%, P2 = 5%, P3 = 15%, P4 = 25% yang dipanggang masing-masing selama 120 menit menggunakan oven. Uji organoleptik digunakan di Desa Pasar Melintang Kecamatan Lubuk Pakam, sedangkan untuk analisis zat gizi dilakukan di laboratorium Balai Standardisasi dan Pelayanan Jasa Industri Medan. Uji organoleptik berupa uji hedonik dilakukan dengan menggunakan panelis tidak terlatih yang berjumlah 30 orang. Hasil penelitian dianalisis dengan menggunakan metode uji *Kruskal Wallis* dan uji lanjut *Mann-Whitney*. Penentuan *cookies* terbaik dipilih berdasarkan nilai rata-rata tertinggi untuk setiap parameter yaitu rasa, warna, aroma dan tekstur. Analisis kadar air, kadar abu, kadar protein, kadar lemak, kadar karbohidrat, kadar serat mengacu pada SNI 01-2891-1992. Analisis zat besi menggunakan metode AAS

Hasil Daya Terima secara hedonik formula terbaik adalah F2. Perlakuan F2 (95 persen tepung terigu : 2,5 persen tepung tempe : 2,5 persen tepung bayam hijau) terhadap parameter rasa dengan nilai rata-rata 4,57, parameter warna dengan nilai rata-rata 4,50, parameter aroma dengan nilai rata-rata 4,63, parameter tekstur dengan nilai rata-rata 4,57. Hasil uji proksimat menunjukkan kandungan karbohidrat sebesar 59,81%, kadar lemak sebesar 15,2%, kadar protein sebesar 8,47%, kadar serat sebesar 10,9%, kadar air sebesar 3,85%, kadar abu sebesar 1,77% dan zat besi sebesar 4,06 mg/gr. Berdasarkan data diatas jumlah *cookies* yang harus dikonsumsi sebagai camilan sehat untuk memenuhi kebutuhan protein dan Fe berdasarkan ALG Tahun 2016 adalah 7-10 keping *cookies*.

**Kata Kunci: Cookies, Tepung Tempe, Tepung Bayam, Protein, Zat Besi**

## ABSTRACT

**Ersa Angeli Saragih (5183540020): Acceptability and Nutritional Content of Cookies With Variations in the Addition of Tempeh Flour and Green Spinach Flour to Fulfill the Nutritional Needs of Young Women. Thesis. Faculty of Engineering, Medan State University. 2023**

This research aims to 1). Knowing the acceptability of *cookies* on color, aroma, texture and taste 2). Knowing the nutritional content of *cookies* (nutrient content (ash content, moisture content, fat content, protein content, carbohydrate content, fiber content, and iron)

The research design used was experimental research using a completely randomized design (CRD) method, with a single factor, namely the proportion of tempe flour and spinach flour which was carried out with 4 treatments, namely P1 = 0%, P2 = 5%, P3 = 15%, P4 = 25 % which were baked for 120 minutes each using the oven. The organoleptic test was used in Pasar Melintang Village, Lubuk Pakam District, while the nutrient analysis was carried out in the laboratory of the Center for Standardization and Industrial Services in Medan. The organoleptic test in the form of a hedonic test was carried out using 30 untrained panelists. The research results were analyzed using the Kruskal Wallis test method and the Mann-Whitney follow-up test. The best *cookies* assessment was selected based on the highest average value for each parameter, namely taste, color, aroma and texture. Analysis of water content, ash content, protein content, fat fiber content, carbohydrate content, content refers to SNI 01-2891-1992. Analysis of iron using the AAS method

The best formula for hedonic acceptance is F2. F2 treatment (95 percent wheat flour : 2,5 percent tempeh flour : 2,5 percent green spinach flour) on taste parameters with an average value of 4,57, color parameters with an average value of 4,50, aroma parameters with a average 4,63, texture parameters with an average value of 4,57. Proximate test results showed a carbohydrate content of 59,81%, a fat content of 15,2%, a protein content of 8,47%, a fiber content of 10,9%, a moisture content of 3,85%, an ash content of 1,77 % and iron of 4,06 mg/gr. The number of *cookies* that must be consumed as a healthy snack to meet protein and Fe needs based on the 2016 ALG is 7-10 pieces of *cookies*

**Keywords: Cookies, Tempeh Flour, Spinach Flour, Protein, Iron**