

ABSTRAK

Irdina Sahira : *Uji Organoleptik, Zat Gizi dan Kadar Gula Cookies Substitusi Ubi Jalar Ungu, Kacang Tanah, dan Stevia Sebagai Kudapan Penderita Diabetes Melitus*. Skripsi. Program Studi Gizi. Jurusan Pendidikan Kesejahteraan Keluarga. Fakultas Teknik. Universitas Negeri Medan. 2023

Diabetes melitus terjadi dengan adanya kebiasaan masyarakat seiring perkembangan zaman menyebabkan perubahan pola makan yang diterapkan dari alami menjadi modern dengan mengabaikan aspek kesehatan, dengan hal itu diperlukannya pemilahan makanan yang mengandung zat gizi yang baik untuk tubuh. Penelitian ini bertujuan untuk 1). Mengetahui cara pembuatan cookies substitusi ubi jalar ungu, kacang tanah dan stevia 2). Mengetahui hasil uji organoleptik *cookies* substitusi tepung ubi jalar ungu, kacang tanah dan stevia 3). Mengetahui nilai zat gizi yang meliputi kadar air, abu, protein, lemak, karbohidrat, serat, dan kadar gula total.

Desain penelitian yang digunakan adalah penelitian eksperimen dengan menggunakan metode Rancangan Acak Lengkap (RAL) dengan adanya 4 perlakuan dengan formulasi substitusi tepung ubi jalar ungu dan kacang tanah pada 4 perlakuan yaitu F0 (Kontrol), F1 (Substitusi 30%), F2 (Substitusi 40%), dan F3 (Substitusi 50%). Uji organoleptik dilakukan di laboratorium organoleptik Universitas Negeri Medan, sedangkan untuk analisis zat gizi dilakukan di laboratorium Balai Standarisasi dan Pelayanan Jasa Industri (BSPJI) Medan. Uji organoleptik berupa uji hedonik yang dilakukan menggunakan panelis semi terlatih yang berjumlah 30 orang panelis. Hasil penelitian dianalisis dengan menggunakan metode uji *kruskal wallis* dengan uji lanjutan *mann-whitney*.

Berdasarkan hasil penelitian perlakuan terpilih adalah F2 dengan nilai rata-rata kesukaan 4,16. Kandungan gizi *cookies* terpilih dengan substitusi 40% tepung ubi jalar ungu dan kacang tanah yakni kadar abu (1,92%), kadar air (3,27%), karbohidrat (30,0%), Lemak (36,9%), protein (9,51%), serat (18,4%), dan kadar gula total (1,65%) menunjukkan bahwa penggunaan pemanis stevia dapat mengurangi kadar gula sebesar 90% dari kadar gula *cookies* kontrol yang tanpa adanya pergantian penggunaan gula menjadi pemanis stevia. Zat gizi yang meliputi kadar air, lemak total, protein, dan gula total telah dinyatakan memenuhi syarat mutu *cookies* berdasarkan dengan SNI No. 2973-2011. Berdasarkan hasil analisis kandungan gizi tersebut menunjukkan *cookies* penelitian ini merupakan makanan yang tinggi serat, rendah karbohidrat, dan rendah kadar gula total sehingga baik dikonsumsi sebagai kudapan penderita diabetes melitus.

Kata kunci : *cookies*, ubi jalar ungu, kacang tanah, stevia, diabetes melitus

ABSTRACT

Irdina Sahira : *Purple Sweet Potatoes, Peanuts, and Stevia as Snacks for Patients with Diabetes Mellitus*. Essay. Nutrition Study Program. Family Welfare Education Department. Faculty of Engineering. Medan State University. 2023

Diabetes mellitus occurs with the habits of the community along with the times causing changes in the diet applied from natural to modern by ignoring health aspects, with that it is necessary to sort out foods that contain nutrients that are good for the body. This study aims to 1). Knowing how to make *cookies* substituted with purple sweet potato, peanut and stevia 2). Knowing the organoleptic test results of *cookies* substituted with purple sweet potato flour, peanuts and stevia 3). Knowing the nutritional value which includes water content, ash, protein, fat, carbohydrates, fibre, and total sugar content. This research aims to 1). Knowing how to make *cookies* substituted with purple sweet potato, peanut and stevia 2). Knowing the organoleptic test results of *cookies* substituted with purple sweet potato flour, peanuts and stevia 3). Knowing the nutritional value which includes water content, ash, protein, fat, carbohydrates, fibre, and total sugar content.

The research design used was experimental research using the Completely Randomised Design (CRD) method with 4 treatments with substitution formulations of purple sweet potato and peanut flour in 4 treatments, namely F0 (Control), F1 (30% Substitution), F2 (40% Substitution), and F3 (50% Substitution). Organoleptic tests were carried out at the organoleptic laboratory of Medan State University, while nutrient analysis was carried out at the laboratory of the Balai Standarisasi dan Pelayanan Industri (BSPJI) Medan. The organoleptic test in the form of hedonic test was conducted using 30 semi trained panellists. The results were analysed using the *kruskal wallis* test method with *the mann-whitney follow-up test*.

Based on the results of the study, the selected treatment was F2 with an average favourability score of 4.16. The nutritional content of selected *cookies* with 40% substitution of purple sweet potato flour and peanuts, namely ash content (1.92%), water content (3.27%), carbohydrates (30.0%), fat (36.9%), protein (9.51%), fibre (18.4%), and total sugar content (1.65%) shows that the use of stevia sweetener can reduce sugar content by 90% of the sugar content of control *cookies* without any change in the use of sugar to stevia sweetener. Nutrients including water content, total fat, protein, and total sugar have been declared to meet the quality requirements of *cookies* based on SNI No. 2973-2011. Based on the results of the nutritional content analysis, it shows that the cookies are a food that is high in fibre, low in carbohydrates, and low in total sugar so that it is good for consumption as a snack for people with diabetes mellitus.

Keywords: *Cookies, Purple sweet potato, Peanut, Stevia, Diabetes mellitus*