

ABSTRAK

Puan Inayah Indira: Uji Organoleptik dan Analisis Zat Gizi *Muffin* Substitusi Tepung Biji Durian (*Durio zibethinus Murr*) sebagai Makanan Selingan Sumber Serat. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2025.

Konsumsi serat masyarakat Indonesia masih sangat rendah dan jauh dari rekomendasi asupan minimal. Kontribusi serat dalam diet dapat diperoleh dari beranekaragam pangan seperti biji buah durian yang memiliki potensi besar untuk dimanfaatkan menjadi tepung. Salah satu olahan makanan yang dapat dibuat menggunakan tepung biji durian adalah *muffin*. *Muffin* berbahan dasar tepung terigu memiliki kandungan serat pangan yang rendah. Keberadaan serat pangan yang tinggi pada tepung biji durian berpotensi digunakan sebagai bahan substitusi tepung terigu dalam pembuatan *muffin*. Tujuan penelitian ini adalah mengetahui cara pembuatan *muffin* substitusi tepung biji durian, mengetahui uji hedonik dan mutu hedonik *muffin*, mengetahui *muffin* formulasi terpilih dan mengetahui kandungan gizi *muffin* formulasi terpilih.

Tempat penelitian dilakukan di Laboratorium Gizi Universitas Negeri Medan dari bulan Agustus hingga bulan Desember 2025. Desain penelitian yang digunakan adalah eksperimental dengan metode Rancangan Acak Lengkap (RAL) dengan 3 perlakuan formulasi berbeda menggunakan tepung terigu substitusi tepung biji durian. Uji organoleptik terdiri dari uji hedonik dan mutu hedonik pada parameter warna, aroma, rasa, tekstur dan *after taste* pahit untuk menentukan formula terpilih. Analisis data kuantitatif dilakukan menggunakan uji statistik *Kruskal Wallis* pada taraf nyata 5%, yang dilanjutkan dengan uji *Mann-Whitney* apabila ditemukan perbedaan signifikan. Formula terpilih kemudian dianalisis kandungan gizinya melalui uji proksimat yang mencakup kadar air, kadar abu, protein, lemak, karbohidrat dan serat pangan.

Hasil penelitian didapatkan bahwa *muffin* telah berhasil dikembangkan dengan menggunakan bahan dasar tepung terigu dan tepung biji durian. Pengujian organoleptik yang dilakukan menunjukkan adanya perbedaan nyata ($p < 0.05$) pada parameter hedonik warna, aroma dan tekstur serta mutu hedonik warna, aroma, tekstur dan *after taste* pahit. Formula *muffin* yang paling disukai adalah F1 dengan formulasi 50% tepung terigu dan 50% tepung biji durian. Kandungan gizi *muffin* F1 yaitu kadar air 25.21%, kadar abu 2.58%, karbohidrat 54.63%, protein 3.56%, lemak 13.89% dan serat pangan 6.50%.

Kata Kunci : *muffin*, serat pangan, tepung biji durian, tepung terigu

ABSTRACT

Puan Inayah Indira: Organoleptic Test and Nutrient Analysis of Muffin Substituted with Durian Seed Flour (*Durio zibethinus* Murr) as a Fiber Rich Snack. Thesis, Faculty of Engineering State University of Medan. 2025.

The fiber consumption of the Indonesian population is still very low and far from the recommended minimum intake. The contribution of fiber in the diet can be obtained from a variety of foods, such as durian seeds, which have great potential to be used as flour. One of the food products that can be made using durian seed flour is muffin. Muffin made from wheat flour have low dietary fiber content. The high dietary fiber content in durian seed flour has the potential to be used as a substitute for wheat flour in muffin making. The purpose of this study is to determine the method of making muffin using durian seed flour as a substitute, to assess the hedonic evaluation and quality of the muffin, to identify the selected muffin formulation, and to determine the nutritional content of the selected muffin formulation.

The research was conducted at the Nutrition Laboratory of Medan State University from August to December 2025. The research design used was experimental with a Completely Randomized Design (CRD) method with 3 different formulation treatments using wheat flour substituted with durian seed flour. The organoleptic test consisted of hedonic tests and quality hedonic tests on aspects of color, aroma, taste, texture and bitter aftertaste to determine the selected formula. Quantitative data analysis was conducted using the Kruskal-Wallis statistical test at a 5% significance level, followed by the Mann-Whitney test if a significant difference was found. The selected formula was then analyzed for its nutritional content through a proximate analysis, which includes moisture content, ash content, protein, fat, carbohydrates, and dietary fiber.

The research results showed that muffin were successfully developed using wheat flour and durian seed flour as the main ingredients. The organoleptic tests conducted indicated a significant difference ($p < 0.05$) in hedonic parameters for color, aroma, and texture, as well as hedonic quality for color, aroma, texture, and bitter aftertaste. The most preferred muffin formula was F1 with a formulation of 50% wheat flour and 50% durian seed flour. The nutritional content of F1 muffin is as follows: moisture content 25.21%, ash content 2.58%, carbohydrates 54.63%, protein 3.56%, fat 13.89% and dietary fiber 6.50%.

Key word : *muffin, dietary fiber, wheat flour, durian seed flour*