

ABSTRAK

Annisa Miranda 5183240016: *Snack Bar Tepung Sorgum (*Sorghum bicolor* L. Moench) Sumber Serat Untuk Remaja*. Skripsi. Prodi Gizi. Jurusan Pendidikan Kesejahteraan Keluarga. Fakultas Teknik Universitas Negeri. 2024.

Remaja yang kurang mengonsumsi serat memiliki risiko lebih besar terkena obesitas. Sehingga untuk memenuhi kebutuhan serat harian remaja diperlukan bahan pangan tinggi serat seperti sorgum yang dapat dijadikan produk cemilan. Tujuan dari penelitian ini adalah 1) pembuatan *snack bar* oat substitusi tepung sorgum dengan formulasi 25 persen, 50 persen dan 75 persen. 2) Uji hedonik dan mutu hedonik terhadap warna, aroma, rasa, tekstur, dan *aftertaste*. 3) Formula terbaik *snack bar* substitusi tepung sorgum. 4) Analisis perbandingan produk *snack bar* substitusi tepung sorgum formulasi terbaik dengan produk komersial terhadap aspek warna, aroma, rasa, tekstur, ketebalan serta *aftertaste*. 5) Analisis zat gizi *snack bar* substitusi tepung sorgum pada formula terbaik pada kadar air, abu, protein, lemak, karbohidrat dan serat pangan. Penelitian eksperimen ini menggunakan metode Rancangan Acak Lengkap (RAL) dengan 4 (empat) perlakuan yaitu F0 (0%), F1 (25%), F2 (50%), dan F3 (75%). Analisis uji daya terima dilakukan pada panelis berupa mahasiswa usia 18-19 tahun sebanyak 30 orang. Lokasi penelitian dilaksanakan di Universitas Negeri Medan, Universitas Andalas dan Universitas Ekasakti. Teknik analisis data dianalisis secara deskriptif dan uji Kruskal Wallis, dilanjutkan dengan uji Mann-Whitney.

Hasil penelitian menunjukkan bahwa *snack bar* oat dengan substitusi tepung sorgum perlakuan terpilih yaitu F2 (50:50) berdasarkan hasil uji hedonik dan mutu hedonik. Pengukuran fisik *snack bar* oat dan substitusi tepung sorgum berdasarkan tingkat ketebalan sebesar 14,46-16,50 mm dan berdasarkan tingkat tekstur sebesar 93,94-127,10 N/cm². *Snack bar* oat substitusi tepung sorgum terpilih mengandung energi sebesar 408 kkal, kadar abu 1,54%, kadar air 7,56%, kadar karbohidrat 58,86%, kadar lemak total 12,37%, kadar protein 19,59% dan kadar serat pangan 24,60%. Kandungan serat pangan pada *snack bar* F2 (50:50) sebesar 24,60 gr/100 gr. Sehingga sesuai dengan ketentuan BPOM, *snack bar* oat substitusi tepung sorgum dapat diklaim sebagai tinggi serat bagi remaja.

ABSTRACT

Annisa Miranda 5183240016: *Snack Bar of Sorghum Flour (*Sorghum bicolor* L. Moench) Source of Fiber for Teenagers. Essay.Nutrition Study Program. Majoring in Family Welfare Education. Faculty of Engineering. Medan States University. 2024.*

Adolescents who consume less fiber more risk of obesity than adolescents with sufficient fiber intake. Fullfilling the daily fiber of teenagers, high fiber foods such as sorghum are needed which can be used as ingridients of snack products. The purpose of this research is 1) To make snack bar substituted for sorghum flour with formulations of 25 percent, 50 percent and 75 percent. 2) Hedonic test and hedonic quality of snack bar substitute for sorghum flour on color, aroma, taste, texture, and aftertaste. 3) The best formula for snack bar substitutes for sorghum flour. 4) Comparative analysis of snack bar products substituted for the best formulated sorghum flour with commercial products in aspects of color, aroma, taste, texture, thickness, and aftertaste. 5) Analysis of the nutritional content of the snack bar substitute for sorghum flour in the best formula, namely water content, ash, protein, fat, carbohydrates and dietary fiber. The analysis of the acceptance test was conducted on panelists consisting of 30 students aged 18-19 years. The location of the research was carried out at Medan State University, Andalas University and Ekasakti University. The data analysis technique was analyzed descriptively and the Kruskal Wallis test, followed by the Mann-Whitney test.

The results showed that the oat snack bar with sorghum flour substitution produced in F2 (50:50) were selected of the hedonic test and hedonic quality by panelist. Physical measurements of oat snack bars and sorghum flour substitution were based on a thickness level of 14.46-16.50 mm and texture level of 93.94-127.10 N/cm². The selected oat snack bar substituted for sorghum flour contains 408 kcal of energy, ash (1.54%), water (7.56%), carbohydrate (58.86%), total fat (12.37%), protein (19.59%) and protein (19.59%), dietary fiber (24.60%). The dietary fiber content in snack bar F2 (50:50) is 24.60 gr/100 gr. So in accordance with BPOM regulations, oat snack bars substituted for sorghum flour can be claimed to be high in fiber for teenagers.