

Kadar Pati Resisten, Daya Cerna Pati, dan Mutu Organoleptik *Snack Bar* Tepung Biji Nangka dan Tepung Sorgum Sebagai Pangan Fungsional Untuk Diabetes Melitus

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ABSTRAK

Latar belakang: Penderita diabetes melitus perlu mengatur asupan karbohidrat dengan mengonsumsi karbohidrat kompleks untuk mengontrol kadar glukosa darah. *Snack bar* tepung biji nangka dan tepung sorgum berpotensi menjadi pangan fungsional bagi penderita diabetes melitus dengan adanya peningkatan tren konsumsi *snack bar* dan kandungan pati resisten yang tinggi.

Tujuan: Menganalisis potensi *snack bar* tepung biji nangka dan tepung sorgum sebagai pangan fungsional bagi penderita diabetes melitus ditinjau dari kandungan pati resisten, daya cerna pati, dan mutu organoleptik.

Metode: Desain penelitian adalah rancangan acak lengkap satu faktor dengan perbedaan perbandingan tepung biji nangka dan tepung sorgum, yaitu F0 (0% : 0%), F1 (30% : 70%), F2 (40% : 60%), and F3 (50% : 50%). Kadar pati resisten dan daya cerna pati dianalisis dengan metode spektrofotometri, sedangkan mutu organoleptik dianalisis dengan uji kesukaan 9 titik, uji *just-about-right scale*, dan prioritas konsumen pada 66 panelis. Evaluasi produk dianalisis menggunakan *penalty analysis*. Formulasi terbaik ditentukan dengan metode *multitabulate decision using a compensatory model and additive weighing* (MADCAW).

Hasil: *Snack bar* dengan kadar pati resisten tertinggi dan daya cerna pati terendah adalah F2 (40% : 60%). Formulasi *snack bar* yang paling disukai berdasarkan penerimaan organoleptik adalah F3 (50% : 50%).

Simpulan: *Snack bar* tepung biji nangka dan tepung sorgum berpotensi sebagai pangan fungsional bagi penderita diabetes melitus dengan formulasi terbaik F3 (50% : 50%).

Kata kunci: Pati resisten, daya cerna pati, *snack bar*, pangan fungsional, diabetes melitus

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Resistant Starch Content, Starch Digestibility, and Organoleptic Characteristic of Jackfruit Seeds Flour and Sorghum Flour Snack Bar as a Functional Food for Diabetes Mellitus

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ABSTRACT

Background: Diabetes mellitus patients need to take care of their carbohydrate intake by consuming complex carbohydrate due to maintaining their blood sugar level. Jackfruit seed flour and sorghum flour snack bars have the potential to become functional foods for diabetes mellitus patients due to the enhancement trend of snack bar consumption and their highly resistant starch content.

Objective: Analyzed the potential of jackfruit seed flour and sorghum flour snack bars as a functional food for diabetes mellitus patients based on resistant starch content, starch digestibility, and organoleptic characteristic.

Methods: This research is an experimental study with complete random design using 4 different formulation of jackfruit seeds flour and sorghum flour, named F0 (0% : 0%), F1 (30% : 70%), F2 (40% : 60%), and F3 (50% : 50%). Resistant starch content and starch digestibility was analyzed using spectrophotometry method, while organoleptic characteristic was analyzed using 9-point hedonic test, just-about-right scale, and consumer's priority form on 66 panelists. Evaluation of the product was analyzed using penalty analysis. The best formulation was analyzed using multivariate decision using a compensatory model and additive weighing (MADCAW).

Results: *Snack bar* with the highest resistant starch content and the lowest starch digestibility was F2 (40% : 60%). The most preferred snack bar by organoleptic panelists was the F3 (50% : 50%).

Conclusion: Jackfruit seed flour and sorghum flour snack bars have the potential as a functional food for diabetes mellitus with F3 (50% : 50%) as the best formulation.

Keywords: Resistant starch, starch digestibility, *snack bar*, functional food, diabetes mellitus

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