

KARAKTERISTIK KISHK DENGAN PERBEDAAN RASIO ANTARA YOGHURT DAN TEPUNG BIJI NANGKA (*ARTOCARPUS HETEROPHYLLUS*)

INTISARI

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Meningkatnya kesadaran masyarakat terhadap pola hidup sehat diiringi dengan peningkatan konsumsi pangan fungsional, salah satunya pangan fermentasi. Kishk merupakan produk susu fermentasi yang dibuat dari campuran yoghurt dan sereal menjadi produk kering. Penelitian bertujuan untuk mengetahui karakteristik kishk yang dibuat dengan perbedaan rasio antara yoghurt dan tepung biji nangka selama penyimpanan 14 hari pada suhu dingin (4°C). Penelitian terdiri dari 2 perlakuan yaitu perbedaan rasio antara yoghurt dan tepung biji nangka yaitu P0 (5:0), P1 (4:1), P2 (4,25:0,75), P3 (4,50:0,50) dan perbedaan waktu simpan yaitu penyimpanan selama 0 hari dan 14 hari pada suhu dingin (4°C). Pengujian bahan dasar kishk meliputi kandungan gula pada tepung dan ekstrak tepung biji nangka, pengujian kandungan prebiotik dan indeks prebiotik secara *in vitro*. Pengujian kualitas kishk meliputi perhitungan total mikrobial, total bakteri asam laktat, total probiotik, aktivitas air, pH, total asam tertitrasi, kadar air, kandungan bahan kering, kandungan abu, kandungan lemak kasar, kandungan serat kasar, kandungan protein kasar, kandungan karbohidrat, tekstur/*fracturability*, dan uji organoleptik. Data hasil penelitian dianalisis dengan *Two Way ANOVA* dan diuji lanjut menggunakan uji beda nyata jujur (*Tukey*) dan uji non parametrik Kruskal-wallis pada uji organoleptik. Hasil penelitian menunjukkan tepung dan ekstrak tepung biji nangka mengandung gula. Tepung biji nangka juga berpotensi sebagai prebiotik. Pengujian kualitas yoghurt menunjukkan yoghurt memenuhi standar kualitas yoghurt menurut SNI. Pengujian adonan kishk menunjukkan perbedaan nyata ($P < 0,05$) pada pH setelah ditambah tepung oat, total mikrobial, total bakteri asam laktat dan total probiotik. Perbedaan rasio antara yoghurt dan tepung biji nangka menyebabkan perbedaan nyata ($P < 0,05$) pada pH, total asam tertitrasi, kandungan lemak kasar, dan kandungan serat kasar namun tidak menyebabkan perbedaan nyata ($P > 0,05$) pada total mikrobial, total BAL, total probiotik, aktivitas air, kadar air, kandungan bahan kering, kandungan abu, kandungan lemak kasar, kandungan serat kasar, kandungan karbohidrat, tekstur/*fracturability* dan uji organoleptik. Perbedaan waktu simpan menyebabkan perbedaan nyata ($P < 0,05$) pada pH, total asam trtitrasi, tekstur, kandungan protein kasar, kandungan karbohidrat, total mikrobial, total bakteri asam laktat, dan total probiotik namun tidak menyebabkan perbedaan nyata pada aktivitas air, kadar air, kandungan bahan kering, kandungan abu, kandungan lemak kasar, dan kandungan serat kasar. Perbedaan rasio antara yoghurt dan tepung biji nangka menghasilkan kishk dengan karakteristik yang relatif sama.

Kata Kunci : Biji nangka, karakteristik, kishk, yoghurt

CHARACTERISTICS OF KISHK WITH THE DIFFERENCE IN THE RATIO
BETWEEN YOGURT AND JACKFRUIT SEED FLOUR (*ARTOCARPUS
HETEROPHYLLUS*)

ABSTRACT

Increased public awareness of a healthy lifestyle is accompanied by increased consumption of functional foods, one of which is fermented food. Kishk is a fermented milk product made from a mixture of yogurt and cereal into a dry product. The aim of this study was to determine the characteristics of kishk made with different ratios between yogurt and jackfruit seed flour during 14 days of storage at cold temperatures (4°C). The study consisted of 2 treatments, namely the difference in the ratio between yogurt and jackfruit seed flour which consisted of P0 (5:0), P1 (4:1), P2 (4.25:0.75), P3 (4.50:0, 50) and the difference in storage time consisting of storage for 0 days and 14 days at cold temperature (4°C). Testing for kishk ingredients includes sugar content in flour and jackfruit seed flour extract, testing for prebiotic content and prebiotic index in vitro. Kishk quality testing includes calculating total microbial, total lactic acid bacteria, total probiotics, water activity, pH, total titrated acid, water content, dry matter content, ash content, crude fat content, crude fiber content, crude protein content, carbohydrate content, texture/fracturability, and organoleptic tests. The research data were analyzed using Two Way ANOVA and further tested using the honest significant difference test (Tukey) and the non-parametric Kruskal-Wallis test on the organoleptic test. The results showed that jackfruit seed flour and extract contained sugar. Jackfruit seed flour also contains prebiotics and can increase the growth of probiotic bacteria and inhibit the growth of pathogenic bacteria. Yogurt quality testing shows that yogurt meets the yogurt quality standards according to SNI. The kishk dough test showed a significant difference ($P < 0.05$) in the pH of the dough after adding oat flour, total microbes, total lactic acid bacteria and total probiotics. The difference in the ratio between yogurt and jackfruit seed flour caused significant differences ($P < 0.05$) in pH, total titrated acid, crude fat content, and crude fiber content but did not cause significant differences ($P > 0.05$) in total microbial, total LAB, total probiotics, water activity, moisture content, dry matter content, ash content, crude fat content, crude fiber content, carbohydrate content, texture/fracturability and organoleptic tests. Differences in storage time caused significant differences ($P < 0.05$) in pH, total titrated acid, texture, crude protein content, carbohydrate content, total microbiology, total lactic acid bacteria, and total probiotic bacteria but did not cause significant differences in water activity, moisture content, dry matter content, ash content, crude fat content, and crude fiber content. The difference in the ratio between yogurt and jackfruit seed flour produces kishk with relatively the same characteristics. Jackfruit seed flour can increase total lactic acid bacteria and probiotics although it is still below the standard of fermented milk products according to Codex Alimentarius.

Keywords: Jackfruit seeds, characteristics, kishk, yogurt