

ANALISIS PROKSIMAT, VISKOSITAS, DAN MUTU ORGANOLEPTIK SOYGHURT SINBIOTIK DENGAN PENAMBAHAN TEPUNG AMPAS KEDELAI DAN TEPUNG KOLANG-KALING

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ABSTRAK

Latar Belakang: Penderita obesitas biasanya memiliki keberagaman mikrobiota usus yang tidak seimbang. Hal ini dapat diperbaiki dengan mengonsumsi produk probiotik, seperti yoghurt, dan/atau prebiotik, seperti ampas kedelai dan kolang-kaling. Ampas kedelai berperan meningkatkan kadar protein dan viskositas, serta menurunkan kadar lemak pada soyghurt, sedangkan kolang-kaling berperan meningkatkan viskositas soyghurt. Namun, saat ini studi terkait pengembangan kedua bahan tersebut dalam pembuatan soyghurt masih minim. Maka dari itu, diciptakan produk sinbiotik berupa soyghurt dengan penambahan tepung ampas kedelai dan tepung kolang-kaling.

Tujuan: Menganalisis penambahan tepung ampas kedelai (TA) dan tepung kolang-kaling (TK) terhadap karakteristik fisikokimia dan mutu organoleptik soyghurt sinbiotik.

Metode: Penelitian eksperimental menggunakan rancangan acak lengkap dengan 4 perlakuan berdasarkan perbandingan TA dan TK, yaitu F0 (0%:0%), F1 (0,5%:0%), F2 (0%:0,5%), dan F3 (0,25%:0,25%). Kadar protein, lemak, karbohidrat, air dan abu, serta viskositas dianalisis dengan metode Kjeldahl, Soxhlet, *by difference*, gravimetri, dan viskometer Brookfield. Mutu organoleptik dianalisis dengan hedonik 9 poin dan *Just-About-Right* (JAR) 7 poin. Data proksimat dan viskositas dianalisis dengan uji ANOVA, uji hedonik dengan uji *Kruskal-Wallis*, serta uji JAR dengan *software XLSTAT 2023*.

Hasil: Penambahan TA meningkatkan kadar protein namun penambahan TK menurunkan kadar protein secara signifikan ($p < 0,05$). Penambahan TA dan TK, baik terpisah maupun bersamaan, dapat menurunkan kadar lemak dan meningkatkan kadar karbohidrat secara signifikan ($p < 0,05$). Penambahan TA dapat meningkatkan viskositas, namun penambahan TK menurunkan viskositas secara signifikan ($p < 0,05$). F1 memiliki kadar protein 2,88%, kadar lemak 2,14%, dan kadar abu 0,44% yang telah sesuai dengan SNI, serta memiliki viskositas 121,80 cP dan mutu organoleptik dengan penerimaan yang baik.

Simpulan: Penambahan tepung ampas kedelai dan tepung kolang-kaling memberikan pengaruh terhadap kandungan proksimat, viskositas, dan mutu organoleptik soyghurt sinbiotik.

Kata Kunci: Ampas kedelai, kolang-kaling, soyghurt, fisikokimia, mutu organoleptik

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PROXIMATE ANALYSIS, VISCOSITY, AND ORGANOLEPTIC QUALITY OF SYNBIOTIC SOYGHURT WITH THE ADDITION OF SOYBEAN DREGS FLOUR AND SUGAR PALM FRUIT FLOUR

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ABSTRACT

Background: People with obesity usually have an unbalanced diversity of gut microbiota. This can be corrected by consuming probiotic products, such as yoghurt, and/or prebiotics, such as soybean dregs and palm fruit. Soybean dregs play a role in increasing the protein content and viscosity, as well as reducing the fat content in soyghurt, while sugar palm fruit plays a role in increasing the viscosity of soyghurt. However, currently studies related to the development of these two ingredients in making soyghurt are still minimal. Therefore, a synbiotic product was created in the form of soyghurt with the addition of soybean dregs and sugar palm fruit flour.

Objective: Analyzing the addition of soybean dregs flour (TA) and sugar palm fruit flour (TK) on the physicochemical characteristics and organoleptic quality of synbiotic soyghurt.

Methods: The experimental research used a completely randomized design with 4 treatments based on the comparison of TA and TK, namely F0 (0%:0%), F1 (0,5%:0%), F2 (0%:0,5%), and F3 (0,25%:0,25%). Protein, fat, carbohydrate, water and ash levels, as well as viscosity were analyzed using the Kjeldahl, Soxhlet, by difference, gravimetric and Brookfield viscometer methods. Organoleptic quality was analyzed with hedonic 9 points and Just-About-Right (JAR) 7 points. Proximate and viscosity data were analyzed using the ANOVA test, hedonic test using the Kruskal-Wallis test, and JAR test using XLSTAT 2023 software.

Result: The addition of TA increased protein levels but the addition of TK decreased protein levels significantly ($p < 0.05$). The addition of TA and TK, either separately or together, can reduce fat levels and increase carbohydrate levels significantly ($p < 0.05$). The addition of TA can increase viscosity, but the addition of TK reduces viscosity significantly ($p < 0.05$). F1 has a protein content of 2.88%, a fat content of 2.14% and an ash content of 0.44% which is in accordance with SNI, and has a viscosity of 121.80 cP and organoleptic quality with good acceptance.

Conclusion: The addition of soybean dregs flour and sugar palm fruit flour has an influence on the proximate content, viscosity and organoleptic quality of synbiotic soyghurt.

Keywords: Soybean dregs, sugar palm fruit, soyghurt, physicochemical, organoleptic quality

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