

VARIASI PENAMBAHAN YOGHURT PADA PUDING UBI UNGU DITINJAU DARI SIFAT FISIK, SIFAT ORGANOLEPTIK, DAN AKTIVITAS ANTIOKSIDAN

Reiza Dwi Yuniar^{1*}, Nur Hidayat², Nugraheni Tri Lestari³
^{1,2,3}Jurusan Gizi Poltekkes Kemenkes Yogyakarta,
Jl. Tatabumi No.3 Banyuraden, Gamping, Sleman
*email: reizadwiuniar@gmail.com

ABSTRAK

Latar Belakang: Diabetes Melitus (DM) tipe 2 merupakan penyakit metabolik dengan prevalensi yang terus meningkat secara global dan di Indonesia. Pencegahan penyakit ini dapat dilakukan melalui pola hidup sehat, termasuk konsumsi pangan fungsional. Ubi jalar ungu kaya akan antosianin sebagai antioksidan, sedangkan yoghurt mengandung probiotik yang berperan dalam memodulasi metabolisme glukosa. Kombinasi kedua bahan dalam bentuk puding berpotensi dikembangkan sebagai produk pangan fungsional yang mendukung upaya pencegahan DM tipe 2, sehingga perlu diketahui pengaruh variasi formulanya terhadap karakteristik produk.

Tujuan: Mengetahui perbedaan sifat fisik, sifat organoleptik, dan aktivitas antioksidan dari beberapa formula produk puding ubi ungu yoghurt.

Metode: Jenis penelitian yang dilakukan adalah penelitian eksperimen murni dengan menggunakan desain Rancangan Acak Lengkap (RAL) dengan 4 perlakuan. Variasi penambahan yoghurt pada puding ubi ungu yaitu 0 gram, 50 gram, 75 gram, dan 100 gram. Uji sifat fisik dilakukan menggunakan alat penetrometer, uji sifat organoleptik menggunakan uji hedonik dengan 20 panelis agak terlatih, dan uji aktivitas antioksidan menggunakan metode DPPH.

Hasil: Penambahan yoghurt sebanyak 0 g, 50 g, 75 g, dan 100 g tidak memberikan pengaruh yang signifikan terhadap tekstur puding ubi ungu yang dihasilkan ($p=0,745>0,05$). Penambahan yoghurt tidak memberikan perbedaan yang signifikan pada tingkat kesukaan panelis terhadap aroma ($p=0,140$), rasa ($p=0,813$), dan tekstur ($p=0,460$) di antara keempat sampel puding, namun memberikan perbedaan yang signifikan pada warna puding ($p=0,011$). Penambahan yoghurt memberikan pengaruh yang sangat signifikan terhadap aktivitas antioksidan puding yang dihasilkan ($p=0,000$). Analisis De Garmo menunjukkan bahwa produk F3 (penambahan yoghurt 75 g) memperoleh total skor tertinggi (0,71).

Kesimpulan: Produk puding ubi ungu dengan penambahan yoghurt sebanyak 75 gram terpilih sebagai produk yang paling berpotensi untuk dikembangkan lebih lanjut.

Kata Kunci: Ubi ungu, yoghurt, fisik, organoleptik, aktivitas antioksidan.

VARIATIONS IN YOGHURT ADDITION TO PURPLE SWEET POTATO PUDDING IN TERMS OF PHYSICAL PROPERTIES, ORGANOLEPTIC PROPERTIES, AND ANTIOXIDANT ACTIVITY

Reiza Dwi Yuniar^{1*}, Nur Hidayat², Nugraheni Tri Lestari³
^{1,2,3}Department Nutrition, Yogyakarta Ministry of Health Polytechnic,
Jl.Tatabumi No.3 Banyuraden, Gamping, Sleman
*email: reizadwiyuniar@gmail.com

ABSTRACT

Background: Type 2 diabetes mellitus (DM) is a metabolic disease with a continuously increasing prevalence globally and in Indonesia. Prevention of this disease can be achieved through a healthy lifestyle, including the consumption of functional foods. Purple sweet potatoes are rich in anthocyanins as antioxidants, while yoghurt contains probiotics that play a role in modulating glucose metabolism. The combination of these two ingredients in the form of pudding has the potential to be developed as a functional food product that supports efforts to prevent type 2 DM, so it is necessary to determine the effect of formula variations on product characteristics.

Objective: To determine the differences in physical properties, organoleptic properties, and antioxidant activity of several purple sweet potato yoghurt pudding product formulas.

Methods: The type of research conducted was a pure experimental study using a Completely Randomized Design (CRD) with 4 treatments. The variations in yoghurt addition to purple sweet potato pudding were 0 grams, 50 grams, 75 grams, and 100 grams. Physical properties testing was conducted using a penetrometer, organoleptic properties testing used a hedonic test with 20 semi-trained panelists, and antioxidant activity testing used the DPPH method.

Results: The addition of yoghurt at 0 g, 50 g, 75 g, and 100 g did not have a significant effect on the texture of the purple sweet potato pudding produced ($p=0.745>0.05$). The addition of yoghurt did not make a significant difference in the panelists' preference levels for aroma ($p=0.140$), taste ($p=0.813$), and texture ($p=0.460$) among the four pudding samples, but did provide a significant difference in pudding color ($p=0.011$). The addition of yoghurt had a very significant effect on the antioxidant activity of the resulting pudding ($p=0.000$). De Garmo analysis showed that product F3 (addition of 75 g yoghurt) obtained the highest total score (0.71).

Conclusion: The purple sweet potato pudding product with the addition of yoghurt as much as 75 grams was selected as the product with the most potential to be further developed.

Keywords: Purple sweet potato, yoghurt , physical, organoleptic, antioxidant activity.