

Abstrak

MUTU SENSORI, KADAR FENOLIK, DAN SERAT YOGURT KECAMBAH KACANG TANAH DENGAN PENAMBAHAN EKSTRAK SERAI DAN JAHE (*Yo-canserah*): MINUMAN FUNGSIONAL PENDERITA DIABETES MELITUS TIPE-2

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Latar Belakang: Stres oksidatif dapat memicu kejadian diabetes melitus tipe-2. Produk pangan kaya antioksidan diyakini mampu mengatasi stres oksidatif. Tujuan penelitian ini untuk mengetahui pengaruh proporsi susu kecambah kacang tanah (*Sucamkata*) : skim, ekstrak serai, ekstrak jahe, dan interaksinya terhadap kadar fenolik, serat, dan mutu sensori yogurt berbasis kecambah kacang tanah (*Yo-canserah*).

Metodologi: Penelitian ini menggunakan Rancangan Acak Kelompok Faktorial dengan faktor proporsi *Sucamkata* : skim (90:10; 80:20; 70:30), ekstrak serai (1,5%; 2%) dan ekstrak jahe (1%; 1,5%). Kadar fenolik *Yo-canserah* ditentukan menggunakan metode Folin Ciocalteu; serat menggunakan metode gravimetri; mutu sensori menggunakan metode skoring. Data dianalisis menggunakan Anova, dilanjutkan dengan DMRT bila terdapat signifikansi 0,05. Formula terbaik menggunakan indeks efektivitas.

Hasil Penelitian: Proporsi *Sucamkata* : skim meningkatkan kadar fenolik dan serat ($p < 0,05$). Ekstrak serai meningkatkan kadar fenolik ($p < 0,05$). Ekstrak jahe meningkatkan kadar serat ($p < 0,05$). Interaksi ketiganya meningkatkan kadar fenolik, serat, dan mutu sensori (rasa, aroma, dan kekentalan) ($p < 0,05$). Formula terbaik terbuat dari *Sucamkata* : skim 70:30, 2% ekstrak serai, dan 1,5% ekstrak jahe yang mengandung fenolik 1.413,37 mg GAE/L, serat 2,53%, probiotik $3,6 \times 10^9$ CFU/mL, warna cukup putih kecokelatan, aroma cukup beraroma serai dan jahe, rasa asam, dan tekstur cukup kental.

Kesimpulan: *Yo-canserah* berpotensi sebagai minuman fungsional untuk penderita diabetes melitus tipe-2.

Kata Kunci: yogurt kecambah kacang tanah, ekstrak serai, ekstrak jahe, fenolik, serat, mutu sensori

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Abstract

SENSORY QUALITY, PHENOLIC ACID, AND FIBER OF PEANUT SPROUT YOGURT WITH ADDITION OF LEMONGRASS AND GINGER EXTRACT (*Yo-canserah*): A FUNCTIONAL DRINK FOR PATIENTS WITH TYPE-2 DIABETES MELLITUS

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Background: Type-2 diabetes mellitus can be triggered by oxidative stress. Food product rich in antioxidants are considered capable of overcoming oxidative stress. This research aimed to determine the effect of peanut sprout milk (*Sucamkata*) : skim proportion, lemongrass extract, ginger extract, and their interaction on phenolic, fiber, and sensory quality of peanut sprout yogurt (*Yo-canserah*)

Methods: This study used factorial randomized block design with the factor proportion of *Sucamkata* : skim (90:10; 80:20; 70:30), lemongrass extract (1.5%; 2%) and ginger extract (1%; 1.5%). Phenolic content of *Yo-canserah* was analyzed using Folin Ciocalteu method; fiber using gravimetric method; and sensory quality using scoring method. Data analyzed using ANOVA, followed by DMRT if significance 0.05. The best formula uses an effectiveness index.

Result: Proportion of *sucamkata* : skim increased phenolic and fiber ($p < 0.05$). Lemongrass extract increased phenolic ($p < 0.05$). Ginger extract increased fiber ($p < 0.05$). Interaction of three increased phenolic content, fiber, and sensory quality (taste, aroma, and viscosity) significantly ($p < 0.05$). The best formula made from *Sucamkata* : skim 70:30, 2% lemongrass extract, and 1.5% ginger extract contains 1,413.37 mg GAE/L phenolics, 2.53% fiber, 3.6×10^9 CFU/mL probiotics, moderately brownish white, moderately aromatic with lemongrass and ginger, sour, and moderately thick.

Conclusion: *Yo-canserah* has potential as a functional drink for type-2 diabetes mellitus.

Keyword: peanut sprout yogurt, extract of lemongrass, extract of ginger, phenolic, fiber, sensory quality

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