

Abstrak

KADAR TOTAL FLAVONOID, PROTEIN TERLARUT, DAN SENSORI HEDONIK YOGURT KECAMBAH KACANG TANAH DENGAN PENAMBAHAN SERAI DAN JAHE (*Yocanserah*): MINUMAN FUNGSIONAL PENDERITA DIABETES MELLITUS TIPE-2

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Latar Belakang: Diabetes mellitus dapat menginduksi terjadinya stres oksidatif dan peningkatan asupan makan, sehingga perlu mengonsumsi pangan tinggi antioksidan dan protein. Penelitian ini bertujuan untuk mengetahui pengaruh proporsi susu kacang tanah (*Sucamkata*) dan skim, serta penambahan ekstrak jahe emprit dan serai terhadap kadar protein terlarut, total flavonoid, sensori hedonik, formula terbaik, dan *serving size Yocanserah*.

Metodologi: Penelitian ini menggunakan metode Rancangan Acak kelompok (RAK) faktorial dengan 3 faktor percobaan, yaitu proporsi *Sucamkata*:skim (90:10, 80:20, 70:30), ekstrak jahe emprit (1%, 1,5%), dan ekstrak serai (1,5%, 2%). *Yocanserah* dianalisis protein terlarut (Lowry), total flavonoid (kolorimetri), dan sensori hedonik (skoring).

Hasil Penelitian: Proporsi *Sucamkata*:skim berpengaruh terhadap protein terlarut serta sensori rasa, aroma, dan kekentalan *Yocanserah*. Ekstrak serai meningkatkan protein terlarut ($p=0,004$) dan total flavonoid ($p=0,041$), serta berpengaruh terhadap sensori warna ($p=0,014$), sedangkan ekstrak jahe emprit menurunkan total flavonoid ($p=0,044$) dan berpengaruh terhadap sensori aroma ($p=0,027$). Interaksi ketiga perlakuan berpengaruh terhadap protein terlarut ($p=0,005$), total flavonoid ($p=0,0001$), dan sensori hedonik *Yocanserah*. Formula terbaik terbuat dari 90:10 *Sucamkata*:skim, ekstrak jahe emprit 1% dan serai 2% yang mengandung flavonoid 710,76 mgQE/100g, protein terlarut 49,7%, dan probiotik $6,7 \times 10^8$ CFU/mL.

Kesimpulan: *Yocanserah* dapat menjadi alternatif minuman fungsional penderita diabetes mellitus tipe-2.

Kata Kunci: Yogurt kacang tanah, jahe emprit, serai, protein terlarut, flavonoid, sensori hedonik

Abstract

TOTAL FLAVONOIDS, SOLUBLE PROTEIN, AND HEDONIC SENSORY OF PEANUT SPROUT YOGURT WITH LEMONGRASS AND GINGER ADDITION (*Yocanserah*): A FUNCTIONAL BEVERAGE FOR TYPE-2 DIABETES PATIENTS

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Background: Diabetes mellitus can induce oxidative stress and increased food intake, therefore it is necessary to consume foods high in antioxidants and protein. This study aims to determine the effect of the proportion of peanut sprout milk (*Sucamkata*) and skimmed milk, as well as the addition of ginger and lemongrass extracts, on soluble protein content, total flavonoids, hedonic sensory, optimal formula, and serving size of *Yocanserah*.

Methods: This study used a factorial Randomized Block Design (RBD) method with 3 experimental factors, namely the proportion of *Sucamkata*:skim (90:10, 80:20, 70:30), ginger extract (1%, 1.5%), and lemongrass extract (1.5%, 2%). Soluble protein (Lowry), total flavonoids (colorimetric), and hedonic sensory (scoring) are analyzed.

Results: The proportion of *Sucamkata*:skim had effect on the soluble protein and sensory attributes such as taste, aroma, and viscosity of *Yocanserah*. Lemongrass extract improved soluble protein ($p=0,004$) and total flavonoids ($p=0,041$), while affecting color perception ($p=0,014$) of *Yocanserah*. On the other hand, ginger extract decreases total flavonoids ($p=0,044$) and influences aroma perception ($p=0,027$). The treatment interaction affected the soluble protein ($p=0,005$), total flavonoids ($p=0,0001$), and hedonic sensory of *Yocanserah*. The best formula consisted of a 90:10 *Sucamkata*:skim, 1% ginger extract, and 2% lemongrass extract, which contained 710.76 mgQE/100g flavonoids, 49.7% soluble protein, and 6.7×10^8 CFU/mL probiotics.

Conclusion: *Yocanserah* can be used as an alternative functional drink for patients with type-2 diabetes mellitus.

Keywords: Peanut sprout yoghurt, ginger emprit, lemongrass, soluble protein, flavonoids, hedonic sensory.