

PENGARUH PENAMBAHAN EKSTRAK DAUN *Ficus hispida* Linn.f. TERHADAP PROSES DAN KUALITAS SUSU FERMENTASI

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ABSTRAK

Peningkatan mutu susu fermentasi dapat dilakukan dengan suplementasi ekstrak herbal. Daun *Ficus hispida* secara turun temurun dimanfaatkan sebagai kearifan lokal masyarakat pedesaan Asia Tenggara karena kaya komposisi fitokimia fenolik dan aktivitas antioksidan. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan ekstrak daun *Ficus hispida* terhadap efektivitas fermentasi *Lactococcus lactis* sbsp. *lactis*, total konsentrasi fenolik dan kualitas fisik susu fermentasi selama 24 jam. Penelitian ini menggunakan rancangan acak lengkap (RAL) dua faktor, dengan penambahan ekstrak akuades *F.hispida* 0 % ; 0.1 % ; dan 0.4 % ke dalam campuran susu sapi, susu skim, sukrosa, gelatin dan starter *L.lactis* sbsp. *lactis*. Dilakukan pengukuran *total plate count*, pH, total asam, total konsentrasi fenolik, total padatan, dan total kadar air setiap 6 jam. Hasil penelitian menunjukkan bahwa penambahan ekstrak daun *F.hispida* meningkatkan viabilitas kultur starter, menurunkan pH, meningkatkan total asam, dan meningkatkan total konsentrasi fenolik secara signifikan. Penambahan ekstrak daun *F.hispida* tidak mempengaruhi total padatan dan kadar air susu fermentasi. Susu fermentasi ekstrak akuades *F.hispida* 0.4% mendapatkan nilai total konsentrasi fenolik (39.033 ± 1.698) dan viabilitas BAL (8.907 ± 0.221) tertinggi.

Kata Kunci : Ekstrak daun *Ficus hispida*, , *Lactococcus lactis* sbsp. *lactis* , Susu Fermentasi.

EFFECTS OF THE SUPPLEMENTATION OF *Ficus hispida* Linn.f. LEAF EXTRACT ON THE PROCESS AND QUALITY OF FERMENTED MILK

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ABSTRACT

Herbal extract supplementation could be applied for quality improvement of fermented milk. *Ficus hispida* leaf is a well-known local wisdom from Southeast Asia because of its rich phenolic compound and antioxidant activity. This study aims to determine the effect of *Ficus hispida* leaf extract supplementation on *Lactococcus lactis* sbsp. *lactis* fermenting effectivity, total phenolic content of milk and physical characteristics during 24 hours milk fermentation. This research was true experimental with completely randomized factors, with the addition of 0 %; 0.1 %; and 0.4% *F.hispida* leaf distilled water extract to the mixture of cow milk, skimmed milk, sucrose, gelatin and *L.lactis* sbsp. *lactis* starter. In each six hours interval, total plate count; pH value, TTA value, total phenolic content, total solid, and moisture content were measured. The result obtained showed that supplementation of *F.hispida* leaf extract significantly influenced to increased viability of starter culture, total phenolic content, TTA value and decreased pH value. supplementation of *F.hispida* leaf extract didn't significantly influenced to change total solid and moisture content. Fermented milk with 0.4% *F.hispida* leaf extract had the highest viability (8.907 ± 0.221) and total phenolic content (39.033 ± 1.698).

Keywords: Fermented milk, *Ficus hispida* leaf extract, *Lactococcus lactis* sbsp. *lactis*.



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