

PENGARUH BAKTERI *Lactobacillus plantarum-pentosus* T14 DAN *Lactobacillus plantarum-pentosus* T35 SERTA KONSENTRASI SUKROSA TERHADAP KARAKTERISTIK KIMIAWI, MIKROBIOLOGIS DAN SENSORIS SUSU KAMBING FERMENTASI

INTISARI

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Susu kambing memiliki potensi untuk diolah menjadi susu kambing fermentasi. Dengan menggunakan bakteri asam laktat *L.plantarum-pentosus* T14 dan *L.plantarum-pentosus* T35 serta penambahan variasi konsentrasi sukrosa (0%, 2,5% dan 5%), akan dianalisis pengaruhnya terhadap karakteristik kimiawi, mikrobiologis dan sensoris dari susu kambing fermentasi. Fermentasi susu kambing ini dilakukan dengan menginokulasikan 1% (v/v) kultur starter *L.plantarum-pentosus* T14 dan *L.plantarum-pentosus* T35 ke dalam wadah berisi susu kambing yang telah diberi tambahan sukrosa dengan berbagai variasi. Inkubasi dalam suhu 37°C selama 16 jam. Jumlah sel, % asam tertitrasasi dan pH dalam susu kambing fermentasi dianalisis di awal dan akhir fermentasi, analisis kandungan kimia yang terdiri dari analisis kandungan abu, padatan total dan padatan susu tanpa lemak, lemak, protein dan uji sensoris tingkat kesukaan panelis terhadap sampel susu kambing fermentasi. Hasil penelitian menunjukkan bahwa *L.plantarum-pentosus* T14 dan *L.plantarum-pentosus* T35 dalam susu kambing fermentasi dengan variasi sukrosa tidak mengalami pertumbuhan secara signifikan dan mampu memproduksi asam selama fermentasi. Penambahan dua strain bakteri dan variasi konsentrasi sukrosa mempengaruhi hasil kimia yang terdiri dari kadar abu, kadar padatan total dan padatan susu tanpa lemak, kadar lemak dan kadar protein namun tidak mempengaruhi tingkat kesukaan panelis terhadap susu kambing fermentasi.

Kata kunci: Susu kambing fermentasi, bakteri asam laktat, konsentrasi sukrosa.

EFFECT OF BACTERIA *Lactobacillus plantarum-pentosus* T14 AND *Lactobacillus plantarum-pentosus* T35 AND SUCROSE CONCENTRATION TO CHEMICAL, MICROBIOLOGY AND SENSORY CHARACTERISTIC OF FERMENTED GOAT MILK

ABSTRACT

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Goat milk has the potential to be processed into fermented goat milk. By using lactic acid bacteria *Lactobacillus plantarum-pentosus* T14 dan *Lactobacillus plantarum-pentosus* T35 and the addition of variations sucrose concentration (0%, 2.5% and 5%) will be analyzed the effect of fermented goat milk. The fermentation of goat's milk was done by inoculating 1% (v/v) starter culture of *Lactobacillus plantarum-pentosus* T14 dan *Lactobacillus plantarum-pentosus* T35 into container containing goat's milk which have been given additional various of sucrose. Incubate at 37°C for 16 hours. Cell count, % titrated acid and pH in fermented goat milk were analyzed at the beginning and end of fermentation, analysis of chemical content consisting od analysis of ash content, total solid and solid non fat content, fat content, protein content and sensory test of panelist preferences on fermented goat milk sampels. The results showed that *Lactobacillus plantarum-pentosus* T14 dan *Lactobacillus plantarum-pentosus* T35 in fermented goat milk with variations in sucrose not significantly increased their growth and acid production during fermentation. Difference in bacterial strains and concentration of sucrose affected the chemical result consisting of ash content, total solid and solid non fat content, fat content, protein content but not affect the level of preference of panelists for fermented goat milk.

Keywords: Fermented goat milk, lactic acid bacteria, sucrose addition.