

ABSTRAK

PEMBUATAN KEJU NABATI DARI KACANG MERAH DAN CRUDE PALM OIL (CPO) MELALUI PROSES FERMENTASI *Lactobacillus bulgaricus* dan *Streptococcus lactis*

Keju nabati merupakan salah satu produk pangan alternatif yang dikembangkan sebagai pengganti keju nabati konvensional berbahan susu hewani. Penelitian ini bertujuan untuk menganalisis pengaruh rasio susu kacang merah dan *Crude Palm Oil* (CPO) serta waktu inkubasi terhadap karakteristik keju nabati yang dihasilkan melalui fermentasi menggunakan bakteri *Lactobacillus bulgaricus* dan *Streptococcus lactis*. Variasi rasio susu kacang merah dan CPO yang digunakan yaitu 90:5, 85:10, 80:15, 75:20, dan 70:25 dengan waktu inkubasi 4, 8, 12, 16, dan 20 jam. Parameter yang dianalisis meliputi pH, kadar air, kadar Protein, kadar abu, tekstur, warna, dan uji Organoleptik. Kadar air yang diperoleh berkisar antara 26,00–64,00%, kadar abu 0,62–1,81%, dan kadar Protein 10,21–15,20%. Formulasi terbaik diperoleh pada rasio susu kacang merah:CPO 80:15 dengan waktu inkubasi 12 jam yang menghasilkan kadar air 39,00%, kadar abu 1,24%, kadar Protein 13,78%, dan pH 5,50. Hasil penelitian menunjukkan bahwa kombinasi susu kacang merah dan CPO berpotensi menghasilkan keju nabati dengan karakteristik fisik dan kimia yang baik serta dapat dikembangkan sebagai alternatif pangan berbasis bahan nabati dan sumber daya lokal.

Kata Kunci: Keju nabati, Kacang Merah, *Crude Palm Oil* (CPO), Fermentasi, *Lactobacillus bulgaricus*, *Streptococcus lactis*.

ABSTRACT

PRODUCTION OF PLANT-BASED CHEESE FROM RED BEAN MILK AND CRUDE PALM OIL (CPO) VIA FERMENTATION USING *L. acctobacillus Bulgaricus* And *Streptococcus Lactis*

*Vegetable cheese is an alternative food product developed as a substitute for conventional vegetable cheese made from animal milk. This study aims to analyze the effect of the ratio of red bean milk and Crude Palm Oil (CPO) and incubation time on the characteristics of vegetable cheese produced through fermentation using *Lactobacillus bulgaricus* and *Streptococcus lactis* bacteria. Variations in the ratio of red bean milk and CPO used were 90:5, 85:10, 80:15, 75:20, and 70:25 with incubation times of 4, 8, 12, 16, and 20 hours. The parameters analyzed included pH, water content, Protein content, ash content, texture, color, and Organoleptic tests. The water content obtained ranged from 26.00–64.00%, ash content 0.62–1.81%, and Protein content 10.21–15.20%. The best formulation was obtained at a ratio of red bean milk: CPO 80:15 with an incubation time of 12 hours which resulted in a water content of 39.00%, ash content of 1.24%, protein content of 13.78%, and pH 5.50. The results of the study indicate that the combination of red bean milk and CPO has the potential to produce plant-based cheese with good physical and chemical characteristics and can be developed as an alternative food based on plant-based ingredients and local resources.*

*Keywords: Plant-Based Cheese, Red Beans, Crude Palm Oil (CPO), Fermentation, *Lactobacillus bulgaricus*, *Streptococcus lactis*.*