

FORMULASI KEFIR SUSU KAMBING DENGAN PENAMBAHAN TEPUNG PISANG BATU (*MUSA BALBISIANA*) SEBAGAI MINUMAN SINBIOTIK

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Abstrak

Susu fermentasi merupakan produk pangan fungsional yang dapat memberikan efek menguntungkan bagi kesehatan. Susu fermentasi yang sedang berkembang saat ini salah satunya adalah kefir. Penelitian ini bertujuan untuk membuat formulasi kefir susu kambing dengan penambahan tepung pisang batu sebagai minuman sinbiotik. Penelitian ini menggunakan rancangan acak lengkap. Terdapat 3 formula dengan masing-masing penambahan tepung pisang batu sebesar 4 gram, 8 gram, 12 gram dan penambahan *starter* kefir 0.5 gram. Semua perlakuan diinkubasi pada suhu ruang selama 24 jam. Uji kualitas kefir yang diamati yaitu sifat organoleptik, kimiawi (kadar air, kadar lemak, kadar protein, kadar karbohidrat, dan kadar serat kasar), fisik (pH dan viskositas), dan mikrobiologis yaitu total bakteri asam laktat. Data hasil organoleptik dianalisis dengan *Kruskal Wallis* dan uji lanjut *Mann Whitney*. Data hasil kimiawi, fisik, dan mikrobiologis dianalisis dengan analisis deskriptif. Hasil penelitian menunjukkan formula terpilih pada kefir dengan penambahan tepung pisang batu sebanyak 4 gram, memiliki kadar air sebesar 85,47%, kadar lemak sebesar 0,24%, kadar protein sebesar 4,44%, kadar karbohidrat sebesar 8,56%, kadar serat kasar sebesar 1,09%, pH sebesar 4,10, viskositas sebesar 616,6 cP dan total bakteri asam laktat sebesar $2,0 \times 10^7$ CFU/ml.

Kata Kunci : Kefir, Susu Kambing, Tepung Pisang Batu, Sinbiotik

FORMULATION OF GOAT MILK KEFIR WITH THE ADDITION OF MUSA BALBISIANA FLOUR AS A SYNBIOTIC DRINK

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Abstract

Fermented milk is a functional food product that can have a beneficial effect on health. Fermented milk is currently developing, one of them is kefir. This research aimed to make a goat milk kefir formulation by adding *Musa balbisiana* flour as a synbiotic drink. This research used a completely randomized design. There are 3 formulas with each addition of *Musa balbisiana* flour of 4 grams, 8 grams, 12 grams and adding a starter of 0.5 grams. All formulas were incubated at room temperature for 24 hours. The kefir quality test observed was organoleptic, chemical (water content, fat content, protein content, carbohydrate content, and crude fiber content), physical (pH and viscosity), and microbiological ie total lactic acid bacteria. Organoleptic results data were analyzed by *Kruskal Wallis* and *Mann Whitney* follow-up. Data on chemical, physical, and microbiological results were analyzed by descriptive analysis. The results showed that the formula was selected in kefir by adding 4 grams of *Musa balbisiana* flour, having a water content of 85.47%, fat content of 0.24%, protein content of 4.44%, carbohydrate content of 8.56%, crude fiber content of 1.09%, pH of 4.10, viscosity of 616.6 cP and total lactic acid bacteria of 2.0×10^7 CFU / ml.

Keywords: Kefir, Goat Milk, *Musa balbisiana* Flour, Synbiotics