

PENGARUH TINGKAT KEMATANGAN PISANG KEPOK (*Musa paradisiaca formatypica*) TERHADAP SIFAT MIKROBIOLOGIS, KIMIA, DAN ORGANOLEPTIK KEFIR SUSU KAMBING
[*The Effect of Maturity Level of Kepok Banana (*Musa paradisiaca formatypica*) on Microbiological, Chemical, and Organoleptic of Goat's Milk Kefir*]

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ABSTRACT

*The purpose of this study was to determine the effect of maturity level of kepok banana (*Musa paradisiaca formatypica*) on microbiological, chemical, and organoleptic of goat's milk kefir. The method used in this study was the experimental method conducted in the laboratory and were arranged with randomized design (CRD) with one factor or single factor the maturity level of puree kepok banana with 5 treatment were : stage 1, stage 3, stage 5, stage 6 and stage 8 with 4 replications so that 20 trial units were obtained. The parameters observed were the total lactic acid bacteria (LAB), probiotic viability, total lactic acid, pH and organoleptic (color, aroma and taste). Observed data were analyzed for diversity with a real level of 5% using Co-Stat. If there was a real difference, further analysis was carried out Polynomial Orthogonal Method (MOP) (chemical parameters), and Honestly Significant Difference (organoleptic parameters). The results showed that the maturity level of puree kepok banana had a significantly different effect on the total lactic acid, pH and organoleptic properties of color scoring of goat's milk kefir. Goat milk kefir with the addition of puree kepok banana at stage 5 maturity level was the best treatment based on the value of LAB growth of 8,69 log CFU/mL, smallest number of probiotic viability reduction 0,30 log CFU/mL (9,2 log CFU/mL to 8,88 log CFU/mL), total lactic acid 1,71%, pH 4,2 and organoleptic (scoring and hedonic) have good result by color, aroma and taste of kefir that was accepted by the panelists.*

Keywords: Goat's milk kefir, maturity level, puree kepok banana

ABSTRAK

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh tingkat kematangan pisang kepok (*Musa paradisiaca formatypica*) terhadap sifat mikrobiologis, kimia dan organoleptik kefir susu kambing. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan satu faktor atau faktor tunggal yaitu perbedaan tingkat kematangan pisang kepok (*Musa paradisiaca formatypica*) (K), dengan 5 perlakuan yaitu menggunakan pisang kepok dengan tingkat kematangan pada *stage 1, stage 3, stage 5, stage 6, dan stage 8* dengan ulangan sebanyak 4 kali sehingga diperoleh 20 unit percobaan. Adapun parameter yang diuji adalah total bakteri asam laktat (BAL), viabilitas probiotik, total asam laktat, pH dan organoleptik (warna, aroma, dan rasa). Data hasil pengamatan dianalisis keragaman dengan taraf nyata 5% menggunakan *Co-Stat*. Apabila terdapat beda nyata, dilakukan uji lanjut Metode Ortogonal Polinomial (MOP) (parameter kimia), dan uji lanjut Beda Nyata Jujur (BNJ) (parameter organoleptik). Hasil penelitian menunjukkan tingkat kematangan pisang kepok memberikan pengaruh yang berbeda nyata terhadap total asam laktat, pH dan sifat organoleptik skoring warna kefir susu kambing. Kefir susu kambing dengan penambahan pisang kepok pada tingkat kematangan *stage ke – 5* merupakan perlakuan terbaik berdasarkan total bakteri asam laktat 8,69 log CFU/mL, viabilitas probiotik hanya mengalami penurunan 0,30 log CFU/mL (9,2 log CFU/mL – 8,88 log CFU/mL), total asam laktat 1,71 % , pH 4,2, serta organoleptik baik skoring maupun hedonik memiliki hasil yang paling disukai oleh panelis karena baik warna, aroma dan rasa yang sesuai.

Kata kunci: Kefir susu kambing, pisang kepok, tingkat kematangan,