

**KUALITAS YOGHURT SINBIOTIK SUSU SAPI UHT DENGAN PENAMBAHAN TEPUNG SORGUM
(*Sorghum bicolor* (L.))**

**QUALITY OF SINBIOTIC YOGHURT UHT COW MILK WITH ADDITING SORGUM FLOUR (*Sorghum
bicolor* (L.))**

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ABSTRACT

*Sinbiotic yoghurt is made from UHT cow's milk with the addition of sorghum flour (*Sorghum bicolor* L.). This study aimed to determine the effects of adding sorghum flour to the characteristics physicochemical, microbiological and organoleptic of sinbiotic yogurt. The design used in this study was a completely randomized design (CRD) with one factor, namely 0 sorghum flour; 2.5 ; 5 ;7.5; 10 and 12.5 % with 3 replid to obtain 18 experimental units. Observed data were analyzed using analysis of variance at 5% significance level using Co-Stat software and with the Turkey's-HSD at a 5% level. The parameters observed included viscosity, color, pH, total dissolved solids, protein content, total lactic acid, total lactic acid bacteria, decrease in LAB viability, aroma and taste. The best treatment was obtained with the addition of 7.5% sorghum flour, resulting in characteristics according to SNI 01-2981-2009 with a total LAB value of 8.46 log CFU/mL; decrease in LAB viability 0.12 log CFU/mL; pH value 3.94; total dissolved solids 23.3°Brix; viscosity 5488 cP; 6.79% protein content; total lactic acid 0.70%; and the organoleptic of scoring and hedonic that can be accepted and liked by the panelist.*

Keywords: *Prebiotic, Sinbiotic, Sorghum Flour, Yoghurt*

ABSTRAK

*Yoghurt sinbiotik dibuat dari susu sapi UHT dengan penambahan tepung sorgum (*Sorghum bicolor* L.). Penelitian ini bertujuan untuk mengetahui pengaruh penambahan tepung sorgum terhadap karakteristik fisikokimia, mikrobiologi dan organoleptik *yoghurt* sinbiotik. Rancangan yang digunakan pada penelitian ini adalah Rancangan Acak Lengkap (RAL) dengan satu faktor yaitu tepung sorgum 0; 2,5; 5; 7,5; 10 dan 12,5 % dengan 3 kali ulangan sehingga diperoleh 18 unit percobaan. Data hasil pengamatan dianalisis menggunakan analisis keragaman (*Analysis of Variance*) dengan taraf nyata 5% menggunakan *Co-Stat* dan dengan Uji Lanjut Beda Nyata Jujur (BNJ) pada taraf 5%. Parameter yang diamati meliputi viskositas, warna, pH, total padatan terlarut, kadar protein, total asam laktat, total bakteri asam laktat, penurunan viabilitas BAL, aroma dan rasa. Perlakuan terbaik diperoleh pada penambahan 7,5% tepung sorgum, menghasilkan karakteristik sesuai SNI 01-2981-2009 dengan nilai total BAL 8,46 log CFU/mL; nilai penurunan viabilitas BAL 0,12 log CFU/mL; nilai pH 3,94; total padatan terlarut 23,3°Brix; viskositas 5488 cP; kadar protein 6,79%; total asam laktat 0,70%; serta organoleptik skoring dan hedonik yang dapat diterima dan disukai oleh panelis.*

Kata kunci: *Prebiotik, Sinbiotik, Tepung Sorgum, Yoghurt*