

Sifat Mutu Es Krim Probiotik Dengan Kombinasi Ubi Jalar Ungu Sebagai Kandidat Pangan Fungsional (*The Quality Properties of Probiotic Ice Cream with Purple Sweet Potato Combination as Functional Food Candidate*)

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ABSTRACT

Probiotic ice cream is a product containing lactic acid bacteria (LAB) that has the potential to act as probiotics, which are live microorganisms that, when consumed, enhance health. The aim of this study was to investigate the effects of adding probiotic bacteria Streptococcus thermophilus & Lactobacillus acidophilus and purple sweet potato on the physical, microbiological, and sensory properties of ice cream. This study used a Completely Randomized Design (CRD). Each treatment was repeated twice. There were 9 treatments: P1 (0% bacteria: 0 g purple sweet potato), P2 (3% bacteria: 0 g purple sweet potato), P3 (6% bacteria: 0 g purple sweet potato), P4 (0% bacteria: 150 g purple sweet potato), P5 (3% bacteria: 150 g purple sweet potato), P6 (6% bacteria: 150 g purple sweet potato), P7 (0% bacteria: 300 g purple sweet potato), P8 (3% bacteria: 300 g purple sweet potato), P9 (6% bacteria: 300 g purple sweet potato). The analysis used was analysis of variance (ANOVA) with SPSS, followed by the Honestly Significant Difference (HSD) test. The results showed that the addition of probiotic bacteria Streptococcus thermophilus & Lactobacillus acidophilus and purple sweet potato had a significant effect on total bacteria, pH value, overrun, melting rate, hedonic, and hedonic quality properties. The best treatment for probiotic ice cream was found in treatment P2 with results for total bacteria (8.85 log CFU), pH (6.02), overrun (17.41%), melting rate (13 minutes), hedonic scores (color 4.00; aroma 4.56; texture 4.56; taste 5.84), and hedonic quality scores (color 1.94; aroma 4.72; texture 4.70; taste 4.58).

Keywords : *Functional ice cream, probiotic bacteria, Streptococcus thermophilus, Lactobacillus acidophilus, purple sweet potato, physical properties, microbiological properties, sensory properties*