

KUALITAS ES KRIM YOGHURT PROBIOTIK DENGAN PENAMBAHAN JUS BUAH STRAWBERRY YANG DISIMPAN SELAMA 30 HARI

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan jus buah *strawberry* terhadap kualitas fisik, kimia dan mikrobiologis es krim *yoghurt* probiotik yang disimpan selama 30 hari. Perlakuan pertama es krim *yoghurt* probiotik dengan penambahan jus buah *strawberry* dan perlakuan kedua yaitu es krim *yoghurt* probiotik tanpa penambahan jus buah *strawberry*. Masing-masing disimpan pada hari ke-0, 15, dan 30. Es krim *yoghurt* probiotik ini menggunakan bakteri *Streptococcus thermophilus*, *Lactobacillus bulgaricus* dan *Lactobacillus acidophilus* yang kemudian diuji kualitasnya meliputi overrun, titik leleh, pH, keasaman, kadar protein, kadar lemak, kadar laktosa, total solid dan total bakteri asam laktat. Analisis statistik yang digunakan yaitu analisis variansi pola faktorial 2x3. Hasil penelitian menunjukkan bahwa penambahan *strawberry* berpengaruh ($P \leq 0,05$) pada nilai pH, kadar lemak dan overrun. Rerata kualitas es krim *yoghurt* probiotik dengan jus buah *strawberry* mempunyai nilai pH 4,17, kadar lemak 3,82% dan overrun 55%, sedangkan kualitas es krim *yoghurt* probiotik tanpa penambahan jus buah yaitu nilai pH 4,45, kadar lemak 6,8% dan overrun 70,67%, tetapi tidak memberikan pengaruh yang nyata pada kualitas es krim *yoghurt* dengan penambahan jus buah yaitu titik leleh 35,35 menit, kadar asam laktat 0,80%, protein 4,15%, laktosa 4,24%, total solid 40,15% dan total BAL $1,35 \times 10^8$ cfu/ml, sedangkan tanpa penambahan jus buah mempunyai titik leleh 36,96 menit, kadar asam laktat 0,67%, protein 3,83%, laktosa 4,45%, total solid 42,09% dan total BAL $1,06 \times 10^8$ cfu/ml. Hasil penelitian ini dapat disimpulkan bahwa es krim *yoghurt* *strawberry* masih memenuhi syarat sebagai probiotik dan es krim *yoghurt* dengan penambahan jus buah *strawberry* sudah sesuai dengan Standar Nasional Indonesia (SNI) (laktosa, protein, total solid, overrun) kecuali kadar lemak.

(Kata kunci: *Yoghurt*, Es krim, Bakteri Asam Laktat, Probiotik, *Strawberry*)

THE QUALITY OF PROBIOTIC YOGURT ICE CREAM WITH THE ADDITION OF STRAWBERRY JUICE STORED FOR 30 DAYS

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ABSTRACT

This study is aimed to identify the effect of strawberry juice addition on the physical, chemical, and microbiological quality of probiotic yogurt ice cream stored for 30 days. The first treatment was ice cream of probiotic yogurt with the addition of strawberry juice, while the second treatment was probiotic yogurt ice cream without the addition of strawberry juice. Each ice cream then stored in the zero, fifteenth, and thirtieth days. The probiotic yogurt as material for ice cream, was fermented using *Streptococcus thermophilus*, *Lactobacillus bulgaricus*, and *Lactobacillus acidophilus* bacteria. Quality parameter of ice cream which would be tested, including the overrun, melting point, pH, acidity, protein content, fat content, lactose content, total solid content, and lactic acid bacteria total. Factorial pattern 2x3 variance analysis was used as the statistic analysis. The result shows that the addition of strawberry juice take effect on the pH level ($P < 0,05$), fat content, and overrun. The average points of the first treatment show 4,17 in pH level, 3,82% in fat content, and 55% in overrun, while the quality of the second treatment shows 4,45 in pH level, 6,8% in fat content, and 70,67% in overrun. However, the addition of strawberry juice does not give any significant impact to the ice cream quality as the result shows 33,35 minutes in melting point, 0,80% in lactic acid content, 4,15% in protein content, 4,24% in lactose content, 40,15% in total solid, and $1,35 \times 10^8$ cfu/ml in BAL total. On the other hand, the quality of the ice cream without strawberry juice addition shows 36,96 minutes in melting point, 0,67% in lactic acid content, 3,83% in protein content, 4,45% in lactose content, 42,09% in total solid, and $1,06 \times 10^8$ cfu/ml. From the results, it can be concluded that strawberry yogurt ice cream is still qualified as probiotic, and yogurt ice cream with strawberry juice addition has fit the Indonesian National Standard (lactose, protein, total solid, overrun, except fat content).

(Keyword: Yogurt, Ice cream, Lactic acid bacteria, Probiotic, Strawberry)