

PENGARUH PENAMBAHAN SARI TEBU (*Saccharum officinarum*) TERHADAP MUTU FRUIT YOGHURT SARI KULIT BUAH NAGA MERAH (*Hylocereus polyrhizus*)

MALAHAYATI

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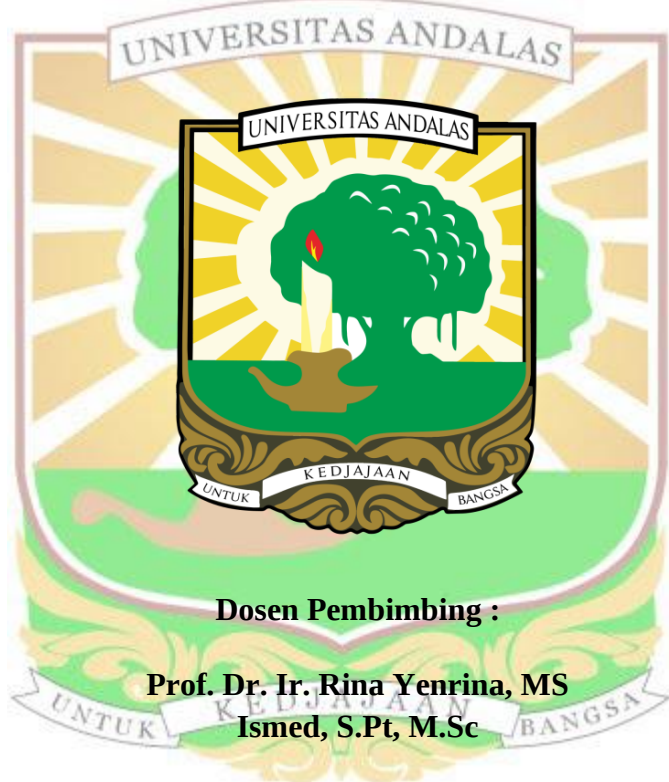


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ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan sari tebu (*Saccharum officinarum*) terhadap mutu fruit yoghurt sari kulit buah naga merah (*Hylocereus polyrhizus*) dan mengetahui konsentrasi penambahan sari tebu terbaik yang dapat digunakan dalam pembuatan fruit yoghurt sari kulit buah naga. Rancangan yang digunakan pada penelitian ini yaitu Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dan 3 ulangan. Perlakuan dalam penelitian ini yaitu sari tebu dengan konsentrasi A (0%), B (5%), C (10%), D (15%), dan E (20%). Data penelitian dianalisis statistika secara *Analysis of Variance* (ANOVA) dan dilanjutkan dengan analisis *Duncan's New Multiple Range Test* (DNMRT) pada taraf 5%. Hasil penelitian menunjukkan bahwa penambahan sari tebu pada yoghurt sari kulit buah naga merah berpengaruh nyata pada taraf 5% terhadap nilai pH, total asam tertitrasi, kadar sukrosa, total padatan terlarut organoleptik rasa, organoleptik aroma, organoleptik tekstur dan total mikroba. Namun berpengaruh tidak nyata terhadap analisis warna, analisis aktivitas antioksidan dan organoleptik warna. Perlakuan terbaik penambahan sari tebu terhadap fruit yoghurt sari kulit buah naga merah yang dihasilkan yaitu pada perlakuan C (penambahan sari tebu 10%) dengan karakteristik rata – rata nilai pH (4,17), total padatan terlarut (8,67 °Brix), total asam tertitrasi (1,65%), kadar sukrosa (2,07%), aktivitas antioksidan (30,67%), nilai viskositas (3800 cP), analisis warna (11,87 °Hue) menghasilkan warna merah, total bakteri asam laktat ($5,7 \times 10^9$ CFU/g), organoleptik warna 4,32 (suka), organoleptik rasa 3,48 (biasa), organoleptik aroma 3,52 (suka), organoleptik tekstur 3,04 (biasa).

Kata Kunci: fermentasi; fruit yoghurt; sari kulit buah naga; sari tebu

THE EFFECT OF SUGAR CANE JUICE (*Saccharum officinarum*) ADDITION ON THE QUALITY OF RED DRAGON FRUIT PEEL (*Hylocereus polyrhizus*) YOGHURT

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ABSTRACT

This research aimed to determine the effect of adding sugar cane juice (*Saccharum officinarum*) on the quality of red dragon fruit peel yoghurt (*Hylocereus polyrhizus*) and identify the optimal concentration of sugar cane juice for its production. The design used in this study was a Complete Random Design (RAL) with 5 treatments and 3 replicates. The treatments in this study were treatment were red dragon fruit peel juice with concentrations A (0%), B (5%), C (10%), D (15%), and E (20%). The research data was statistically analyzed by ANOVA and continued with Duncan's New Multiple Range Test (DNMRT) analysis at the level of 5%. The results indicated that the addition of sugar cane juice to red dragon fruit peel yoghurt had a significant effect at the 5% level on pH value, total titrated acid, sucrose content, total dissolved solids, sensory evaluation of taste, sensory evaluation of aroma, sensory evaluation of texture and total microbial count. However, it had no real effect on the analysis of color, analysis of the antioxidant activity and sensory evaluation of color. The best treatment of adding sugarcane juice to red dragon fruit peel yoghurt produced was in treatment C (addition of 10% sugarcane juice) with the characteristics of an average pH value (4.17), total dissolved solids (8,67 °Brix), total titratable acid (1.65%), sucrose content (2,07%), antioxidant activity (30,67%), viscosity value (3800 cP), color analysis (11,87 °Hue) produced red color, total lactic acid bacteria ($5,7 \times 10^9$ CFU/g), sensory evaluation of color 4.32 (like), sensory evaluation of taste 3.48 (normal), sensory evaluation of aroma 3.52 (like), sensory evaluation of texture 3.04 (normal).

Keywords: fermentation; fruit yoghurt; red dragon fruit peel juice; sugar cane juice

