

ABSTRACT

THE EFFECT OF THE COMBINATION OF CRYSTAL GUAVA (*Psidium guajava* L.) AND RED DRAGON FRUIT PEEL (*Hylocereus polyrhizus*) ON THE SENSORY AND PHYSICOCHEMICAL CHARACTERISTICS OF FRUIT LEATHER

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The aims of this research were to determine the effect of combinations of crystal guava and dragon fruit peel on the sensory and physicochemical characteristics of fruit leather and to obtain the best combination of crystal guava and dragon fruit peel in making fruit leather with good sensory and physicochemical characteristics. This research was arranged using a Complete Randomized Block Design (CRBD) with 5 treatments and 5 replications. The combination treatments of crystal guava and dragon fruit peel in this study were P₁ (90%: 10%), P₂ (80%: 20%), P₃ (70%: 30%), P₄ (60%: 40%), and P₅ (50%:50%). Data were analyzed using the Barlett test and Tuckey test, followed by analysis of variance (ANARA), and further Tukey's Honestly Significant Difference (HSD) test at the 5% level. The research results showed that combinations of crystal guava and dragon fruit peel had an effect on the sensory and physicochemical characteristics of fruit leather and produced the best treatment with a combination of crystal guava and dragon fruit peel were treatment P₄ (60%:40%) with a texture scoring score of 2.65 (plastic), the color score was 2.80 (very red) and the hedonic score resulted in a color score of 2.79 (liked very much), a taste score of 2.53 (liked very much), an aroma score of 2.32 (liked), and an overall acceptability score of 2.45 (like), pH 4.06, water content 13.30%, ash content 2.37%, tensile strength 0.158 MPa, total sugar content 2.12%, crude fiber content 18.14%, and IC50 1525.24 µg/mL.

Key words: fruit leather, crystal guava, red dragon fruit peel

ABSTRAK

PENGARUH KOMBINASI JAMBU KRISTAL (*Psidium guajava* L.) DAN KULIT BUAH NAGA MERAH (*Hylocereus polyrhizus*) TERHADAP KARAKTERISTIK SENSORI DAN FISIKOKIMIA *FRUIT LEATHER*

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Penelitian ini bertujuan mengetahui pengaruh kombinasi jambu kristal dan kulit buah naga terhadap karakteristik sensori dan fisikokimia *fruit leather* serta mendapatkan kombinasi jambu kristal dan kulit buah naga terbaik pada pembuatan *fruit leather* dengan karakteristik sensori dan fisikokimia yang baik. Penelitian ini disusun menggunakan Rancangan Acak Kelompok Lengkap (RAKL) dengan 5 perlakuan dan 5 ulangan. Perlakuan kombinasi jambu kristal dan kulit buah naga pada penelitian ini yaitu P1 (90%:10%), P2 (80%:20%), P3 (70%:30%), P4 (60%:40%), dan P5 (50%:50%). Data dianalisis menggunakan uji Barlett dan Uji Tuckey, dilanjutkan dengan analisis ragam (ANARA), dan uji lanjut BNJ (Beda Nyata Jujur) pada taraf 5%. Hasil penelitian menunjukkan kombinasi jambu kristal dan kulit buah naga berpengaruh terhadap karakteristik sensori dan fisikokimia *fruit leather* serta menghasilkan perlakuan terbaik dengan kombinasi jambu kristal dan kulit buah naga yaitu perlakuan P₄ (60%:40%) dengan skor skoring tekstur 2,65 (plastis), skor warna 2,80 (sangat merah) dan skor hedonik menghasilkan skor warna 2,79 (sangat suka), skor rasa 2,53 (sangat suka), skor aroma 2,32 (suka), dan skor penerimaan keseluruhan 2,45 (suka), pH 4,06, kadar air 13,30%, kadar abu 2,37%, kuat tarik 0,158 MPa, kadar gula total 2,12%, kadar serat kasar 18,14%, dan IC₅₀ 1525,24 µg/mL.

Kata kunci : *fruit leather*, jambu kristal, kulit buah naga