

PENGARUH SUBSTITUSI SARI BUAH NAGA MERAH TERHADAP DAYA TERIMA DAN TOTAL FLAVONOID SUSU NABATI BERBAHAN DASAR BIJI JALI

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Abstrak

Penyakit tidak menular ialah penyakit yang terjadi karena menurunnya fungsi organ tubuh kronis yang disebabkan oleh proses penuaan ataupun peradangan kronis. *World Health Organization* (WHO) memprediksi pada tahun 2030 jumlah kematian akibat penyakit tidak menular akan menjadi 52 juta jiwa pertahun dibandingkan tahun 2018 yang hanya 38 juta jiwa. Tujuan penelitian ini untuk menganalisis formula substitusi sari buah naga merah terhadap daya terima dan total flavonoid susu nabati berbahan dasar biji jali. Metode dalam penelitian ini adalah eksperimental dengan desain penelitian Rancangan Acak Lengkap (RAL) satu faktor dengan dua kali pengulangan. Formula dibedakan menjadi 4 dengan masing-masing tingkat persentase substitusi sari buah naga merah sebesar F0 (0%), F1 (15%), F2 (20%), and F3 (25%). Analisis uji organoleptik menggunakan uji Kruskal Wallis dan dilanjutkan dengan uji Mann Whitney. Analisis uji total flavonoid menggunakan ANOVA dan dilanjutkan dengan uji Duncan. Hasil analisis uji organoleptik substitusi sari buah naga merah berpengaruh nyata ($p < 0,05$) terhadap tingkat kesukaan warna. Berdasarkan uji analisis total flavonoid substitusi sari buah naga merah berpengaruh nyata ($p < 0,05$) terhadap susu nabati berbahan dasar biji jali. Formula terpilih adalah F3 yang memiliki energi (41,4%), protein (0,68%), lemak (0,49%), karbohidrat (8,57%), kadar abu (0,1%), kadar air (225,5%), total flavonoid (1540 mg) dan viskositas sebesar 11,25 cPoise pada 250 ml takaran saji.

Kata Kunci: Susu Nabati, Total Flavonoid, Biji Jali, Sari Buah Naga Merah, Penyakit Degeneratif

THE EFFECTS OF SUBSTITUTION RED DRAGON FRUIT EXTRACT ON THE SENSORY ACCEPTANCE AND TOTAL FLAVONOID OF VEGETABLE MILK BASED ON JOB'S TEARS SEEDS

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Abstract

Non-communicable diseases are diseases that occur due to decreased function of chronic body organs caused by the aging process or chronic inflammation. World Health Organization (WHO) predicts that in 2030 the number of deaths due to non-communicable diseases will be 52 million people per year compared to 2018 which only 38 million people. The purpose of this study was to analyze the formula for the substitution of red dragon fruit extract on the sensory acceptance and total flavonoids of vegetable milk made from job's tears seeds. The method in this study was experimental with a completely randomized design (CRD) one factor with two repetitions. The formula was divided into 4 with each level of substitution percentage of red dragon fruit extract of F0 (0%), F1 (15%), F2 (20%), and F3 (25%). Organoleptic test analysis used the Kruskal Wallis test and continued with the Mann Whitney test. Analysis of total flavonoid used the ANOVA test and followed by Duncan test. The results of the organoleptic test analysis of the substitution of red dragon fruit extract had a significant effect ($p < 0.05$) on the degree of color preference. Based on the total flavonoid analysis test the substitution of red dragon fruit extract has a significant effect ($p < 0.05$) on vegetable milk based on job's tears seeds. The chosen formula was F3 which has energy (41.4%), protein (0.68%), fat (0.49%), carbohydrate (8.57%), ash content (0.1%), water content (225.5%) total flavonoids (1540 mg) and viscosity of 11.25 cPoise at 250 ml serving sizes.

Keywords: Vegetable Milk, Total Flavonoids, Job's Tears Seeds, Red Dragon Fruit Extract, Non-communicable diseases