

**PENGARUH PENAMBAHAN SEDUHAN BUNGA TELANG
(*Clitoria ternatea* L.) TERHADAP AKTIVITAS ANTIOKSIDAN
DAN KADAR MAGNESIUM JELI BUAH NAGA MERAH
(*Hylocereus polyrhizus*)**

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Abstrak

Bunga telang dan buah naga merah memiliki aktivitas antioksidan serta kadar magnesium yang tinggi. Keduanya berperan penting dalam menurunkan tekanan darah. Tujuan penelitian ini untuk menganalisis pengaruh penambahan seduhan bunga telang terhadap aktivitas antioksidan dan kadar magnesium jeli buah naga merah, menentukan formula terpilih dan mengetahui kandungan zat gizinya. Penelitian ini merupakan studi eksperimental dengan metode Rancangan Acak Lengkap (RAL) satu faktor, dua kali pengulangan, dan tiga taraf perlakuan dalam penambahan bunga telang, yaitu F1 (5 gram), F2 (7 gram), dan F3 (9 gram). Analisis aktivitas antioksidan menggunakan metode DPPH sedangkan kadar magnesium menggunakan metode Spektrofotometri Serapan Atom (SSA). Analisis data dilakukan menggunakan uji ANOVA kemudian dilanjutkan dengan uji Duncan apabila $p\text{-value} < 0,05$. Formula terpilih ditentukan menggunakan metode De Garmo. Hasil analisis menunjukkan bahwa penambahan seduhan bunga telang berpengaruh nyata terhadap peningkatan aktivitas antioksidan ($p = 0,047$) dan kadar magnesium ($p = 0,000$) jeli buah naga merah. Formula terpilih (F3) per takaran saji (100 gram) mengandung energi 41,52 kkal, protein 0,55 gram, lemak 0 gram, karbohidrat 9,83 gram, magnesium 85,32 mg, dan aktivitas antioksidan 25974,56 ppm. Takaran saji yang disarankan untuk menurunkan tekanan darah sebanyak tiga takaran saji per hari.

Kata Kunci: Aktivitas Antioksidan, Buah Naga Merah, Bunga Telang, Hipertensi, Magnesium

**THE EFFECT OF BUTTERFLY PEA (*Clitoria ternatea* L.)
BREW ADDITION ON ANTIOXIDANT ACTIVITY AND
MAGNESIUM CONTENT OF RED DRAGON FRUIT JELLY
(*Hylocereus polyrhizus*)**

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Abstract

Butterfly pea and red dragon fruit had high antioxidant activity and magnesium content. Both play an important role in lowering blood pressure. The purpose of this research was to analyze the effect of butterfly pea brew addition on antioxidant activity and magnesium content of red dragon fruit jelly, determine the selected formula and its nutritional content. This research is an experimental study with a one-factor Completely Randomized Design (CRD) method, two repetitions, and three treatment levels of butterfly pea addition, namely F1 (5 grams), F2 (7 grams), and F3 (9 grams). Antioxidant activity was analyzed using DPPH method while magnesium content using Atomic Absorption Spectrophotometry (AAS). Data analysis was carried out using ANOVA test then continued with Duncan's test if the p-value < 0.05. The selected formula was determined using the De Garmo method. The results showed that the addition of butterfly pea brew had a significant effect on increasing antioxidant activity (p = 0.047) and magnesium content (p = 0.000) of red dragon fruit jelly. The selected formula (F3) per serving size (100 grams) contains 41.52 kcal energy, 0.55 grams protein, 0 grams fat, 9.83 grams carbohydrate, 85.32 mg magnesium, and 25974.56 ppm antioxidant activity. The recommended serving size for lowering blood pressure is three serving sizes per day.

Keywords: Antioxidant Activity, Butterfly Pea, Hypertension, Magnesium, Red Dragon Fruit