

ABSTRAK

**PENETAPAN KADAR FENOLAT DAN FLAVONOID TOTAL SERTA
AKTIVITAS ANTIOKSIDAN EKSTRAK DAUN JAMBU BOL
(*Syzygium malaccense* (L.) Merr.& L.M. Perry)**

**Oleh :
Alifianti Raehana
11181107**

Tanaman jambu bol merupakan salah satu tanaman yang memiliki aktivitas antioksidan, bagian daun dari tanaman jambu bol memiliki aktivitas antioksidan tertinggi. Penelitian ini bertujuan untuk menentukan aktivitas antioksidan tertinggi dari ekstrak n-heksan, ekstrak etil asetat dan etanol 96% daun jambu bol, menetapkan kadar fenolat dan flavonoid total tertinggi serta korelasi antara kandungan senyawa fenolat dan flavonoid total dengan aktivitas antioksidan ekstrak n-heksana, ekstrak etil asetat dan ekstrak etanol 96% daun jambu bol. Ekstraksi dengan cara refluks menggunakan tiga kepolaran pelarut yang berbeda. Penentuan IC_{50} DPPH, kadar fenolat dan flavonoid total menggunakan spektrofotometer UV-Vis. Korelasi fenolat dan flavonoid total dengan IC_{50} DPPH dianalisis menggunakan metode pearson. Aktivitas antioksidan tertinggi ditunjukkan oleh ekstrak etanol 96% dengan nilai IC_{50} 70,176 μ g/mL. Kadar fenolat total tertinggi ditunjukkan oleh ekstrak etanol 96% sebesar 13,896 mg GAE/100 g Ekstrak. Kadar fenolat dan kadar flavonoid total tertinggi ditunjukkan oleh ekstrak etanol 96% sebesar 18,76 mg QE/100 g Ekstrak. Total fenolat dan flavonoid pada semua sampel uji mempunyai arah korelasi negatif dan bermakna terhadap IC_{50} DPPH .

Kata Kunci : Antioksidan, Daun Jambu Bol, DPPH, Fenolat, Flavonoid

ABSTRACT**DETERMINATION OF TOTAL PHENOLIC AND FLAVONOID LEVELS
AND ANTIOXIDANT ACTIVITY OF GUAVA LEAF EXTRACT****(*Syzygium malaccense* (L.) Merr.& L.M. Perry)**

By :
Alifianti Raehana
11181107

The guava plant is one of the plants that has antioxidant activity, the leaf part of the guava plant has the highest antioxidant activity. This study aims to determine the highest antioxidant activity of n-hexane extract, ethyl acetate and ethanol 96% extract of guava leaves, determine the highest total phenolic and flavonoid content and the correlation between the content of phenolic compounds and total flavonoids with antioxidant activity of n-hexane extract, extract ethyl acetate and ethanol 96% extract of guava leaves. Extraction by reflux using three different solvent polarities. Determination of IC₅₀ DPPH, total phenolic and flavonoid levels using UV-Vis spectrophotometer. The correlation of phenolics and total flavonoids with IC₅₀ DPPH was analyzed using the Pearson method. The highest antioxidant activity was shown by ethanol 96% extract with an IC₅₀ value of 70.176 µg/mL. The highest total phenolic content was shown by ethanol 96% extract of 13.896 mg GAE/100 g extract. Total phenolic and total flavonoid content was shown by ethanol 96% extract of 18.76 mg QE/100 g extract. Total phenolics and flavonoids in all test samples had a significant and negative correlation with IC₅₀ DPPH.

Keywords: Antioxidant, *Syzygium malaccense*, DPPH, Flavonoid, Phenolat.