Daya Hambat Ekstrak Daun Jarak Pagar (*Jatropha curca* L.) Terhadap Pertumbuhan *Pseudomonas aeruginosa*

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis ekstrak daun jarak pagar konsentrasi 10%b/v, 20%b/v, 30%b/v, 40%b/v dan 50%b/v dalam menghambat *Pseudomonas aeruginosa.* Obyek penelitian ini adalah daun jarak pagar yang dikeringkan dan diblender, selanjutnya ditambahkan etanol 96% dan dimaserasi selama (3x24 jam). Hasil maserasi disaring kemudian diuapkan dengan *waterbath* pada suhu 28^0C selanjutnya ditimbang sesuai konsentrasi. Pengujian antibakteri menggunakan metode sumuran. Hasil penelitian menunjukan ekstrak daun jarak pagar konsentrasi 10%b/v, 20%b/v, 30%b/v, 40%b/v dan 50%b/v dapat menghambat bakteri *P.aeruginosa* dengan rata-rata zona hambat berturut-turut 14,5 mm, 17,6 mm, 20,6 mm, 22,6 dan 24,4 mm. Kontrol yang dijadikan pembanding adalah Ciprofloxacin (25 µg) membentuk diameter zona hambat 32 mm. Hasil uji One Way ANOVA didapat dengan nilai (p=0,000). Hal ini menunjukkan bahwa terdapat perbedaan yang bermakna tiap konsentrasi 10%b/v, 20%b/v, 30%b/v, 40%b/v dan 50%b/v, ekstrak daun jarak pagar terhadap pertumbuhan bakteri *P.aeruginosa.* Hasil ini menunjukkan bahwa semakin tinggi konsentrasi ekstrak daun jarak pagar semakin tinggi daya hambat terhadap pertumbuhan bakteri *P.aeruginosa.*

Kata Kunci : Ekstrak daun jarak pagar, *P.aeruginosa*, Metode sumuran.

Inhibitory Power Leaf Extract (*Jatropha curca* L.) on growth of *Pseudomonas aeruginosa*

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ABSTRACT

This study aimed to analyze the Jatropha leaf extract concentration of 10% b/v, 20% b/v, 30% b/v, 40% b/v and 50% b/v in inhibiting *Pseudomonas aeruginosa*. Object of this research is the leaves of Jatropha dried and blended, then add 96% ethanol and macerated for (3x24 hours). Results maceration filtered and then evaporated with the water bath at a temperature of 28^0C subsequently weighed according to the concentration. Antibacterial testing using the method of pitting. The results showed Jatropha leaf extract concentration of 10% b/v, 20% b/v, 30% b/v, 40% b/v and 50% b/v to inhibit bacterial *P.aeruginosa* with an average of successive inhibition zone consecutive14.5 mm, 17.6 mm, 20.6 mm, 22.6 and 24.4 mm. The controls are used as the comparison is Ciprofloxacin (25 mg) formed inhibitory zone diameter of 32 mm. The test results of One Way ANOVA obtained by value (p= 0.000). This shows that there is a significant difference in each concentration of 10% b/v, 20% b/v, 30% b/v, 40% b/v and 50% b/v, jatropha leaf extract on growth of *P.aeruginosa* bacteria . These results indicate that the higher concentration of jatropha leaf extract the higher the inhibitory effect on the growth of *P.aeruginosa* bacteria.

Keywords : Jatropha leaf extract, *P.aeruginosa*, pitting method.