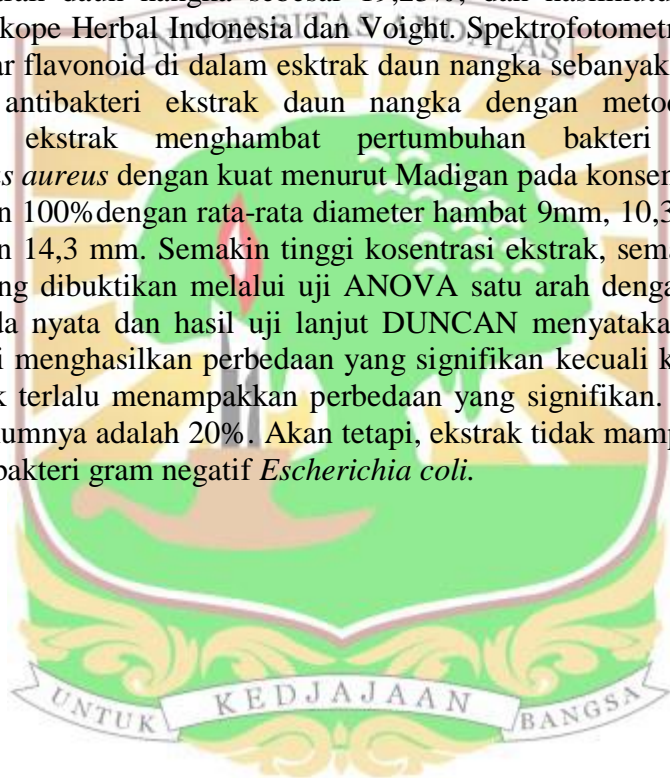


## ABSTRAK

Telah dilakukan penelitian mengenai penetapan kadar flavonoid total dan uji aktivitas antibakteri ekstrak daun nangka (*Artocarpus heterophyllus* Lam.). Tujuan penelitian ini adalah mengekstraksi yang dimulai dengan membuat simplisia dan serbuk simplisia, menguji mutu masing-masingnya, mengukur kadar flavonoid yang terkandung dengan Spektrofotometer UV-Vis serta menguji aktivitas antibakteri daun nangka. Ekstraksi dilakukan secara maserasi dengan etanol 70%. Hasil pemeriksaan mutu didapatkan kadar air daun nangka segar 66% dan susut pengeringannya 69%. Kadar air simplisia daun nangka adalah 5%, kadar air ekstrak daun nangka sebesar 19,23%, dan hasil mutu ini memenuhi standar Farmakope Herbal Indonesia dan Voight. Spektrofotometri menghasilkan data total kadar flavonoid di dalam ekstrak daun nangka sebanyak 0,375 %. Hasil uji aktivitas antibakteri ekstrak daun nangka dengan metode difusi agar menunjukkan ekstrak menghambat pertumbuhan bakteri gram positif *Staphylococcus aureus* dengan kuat menurut Madigan pada konsentrasi 20%, 40%, 60%, 80%, dan 100% dengan rata-rata diameter hambat 9 mm, 10,3 mm, 11,6 mm, 12,67 mm, dan 14,3 mm. Semakin tinggi konsentrasi ekstrak, semakin besar daya hambatnya yang dibuktikan melalui uji ANOVA satu arah dengan  $P < 0,05$  yang artinya berbeda nyata dan hasil uji lanjut DUNCAN menyatakan bahwa setiap konsentrasi uji menghasilkan perbedaan yang signifikan kecuali konsentrasi 60% dan 80% tidak terlalu menampakkan perbedaan yang signifikan. Konsentrasi uji hambat minimumnya adalah 20%. Akan tetapi, ekstrak tidak mampu menghambat pertumbuhan bakteri gram negatif *Escherichia coli*.



## ABSTRACT

A research about determination of total flavonoid content and antibacterial activity testing of jackfruit leaves (*Artocarpus heterophyllus* Lam.) has been done. The purposes of research are to extract jackfruit leaves that the first step is making simplicia and then making simplicia powder, to test the quality of each of it, measure total of flavonoid content in extract using Spectrophotometer UV-Vis and then to test antibacterial activity of jackfruit leaves extract. Extraction was done by maceration with ethanol 70%. The result of quality testing are, water content of fresh jackfruit leaves is 66%, drying loss of it is 69%. Water content of simplicia is 5%, water content of extract is 19,23%, and these results are qualify with Indonesia Herbal Farmakope and Voight standard. Spectroscopic of extract showed that count of flavonoid in extract is 0,375 %. Testing of antibacterial activity of extract by agar diffusion method gave result that it inhibited gram positive bacteria *Staphylococcus aureus* growth strongly according to Madigan at 20%, 40%, 60%, 80%, and 100% in concentration with inhibition diameter are 9mm, 10,3 mm, 11,6 mm, 12,67 mm, and 14,3 mm. The higher extract concentration, the wider inhibition area that is proved through ANOVA one way with  $P < 0,005$  that means there's real difference between testing concentration and it is continued by DUNCAN testing that shows each testing concentration is different significantly except between 60% and 80% in concentration. Minimum testing inhibition is at 20% in concentration of extract. But this extract couldn't inhibit gram negative bacteria *Escherichia coli* growth.

