ABSTRAK

Latar Belakang: Biji kopi memiliki potensi antibakterial karena mengadung berbagai jenis senyawa volatil, seperti aldehida, furfural, alkohol, keton, ester, asam asetat dan asam format. Tujuan penelitian adalah untuk mengetahui pengaruh konsentrasi ekstrak biji kopi arabika (*Coffea arabica l.)* dalam menghambat pertumbuhan *Klebsiella pneumoniae*. **Metode:** Ekstraksi dilaksanakan melalui proses maserasi dan digunakan etanol 96% sebagai pelarut. Uji aktivitas antibakteri terhadap ekstrak dilakukan dengan metode *disc diffusion.* Variabel penelitian yaitu konsentrasi ekstrak biji kopi arabika (*Coffea Arabica L.*) 25%, 50%, 75% dan 100%. **Hasil:** Penelitian yang dilakukan membuktikan bahwa terdapat zona hambat terhadap pertumbuhan bakteri *Klebsiella pneumonia* dengan aktivitas antibakterial tertinggi terdapat pada konsentrasi ekstrak 75% yaitu sebesar 22,275mm dan terendah pada konsentrasi ekstrak 25% yaitu sebesar 19,175mm. **Kesimpulan:** Ekstrak biji kopi arabika memiliki daya hambat terhadap pertumbuhan *Klebsiella pneumoniae.*

Kata kunci: antibakteri, biji kopi arabika, *disc diffusion*, *Klebsiella pneumoniae,* maserasi.

ABSTRACT

Background: *Coffee beans itself has an antibacterial potential as it contain various types of volatile compounds, such as aldehydes, furfural, alcohols, ketones, esters, acetic acid and formic acid. The aim of this research is to determine the concentration effect of arabica coffee beans (Coffea Arabica l.) in inhibiting the growth of Klebsiella pneumoniae.* ***Method:*** *The extraction method used was the maceration extraction method with 96% ethanol as the solvent. The antibacterial activity test were accomplished by using the disc diffusion method. The research variables were the arabica coffee bean extract (Coffea Arabica l.) with the concentration of 25%, 50%, 75% and 100%.* ***Results:*** *The results proved that there was an inhibitory zone against the growth Klebsiella pneumoniae bacteria with the highest antibacterial activity were found on concentration of 75% namely, 22,275mm and the lowest on concentration of 25%, namely 19,175mm.* ***Conclusions:*** *Arabica coffee seed extract has inhibition effect on Klebsiella pneumoniae growth.*

Kata kunci: *antibacterial, arabica coffee seed, disc diffusion, Klebsiella pneumoniae, maceration.*