

**DAYA HAMBAT EKSTRAK SEREH (*Cymbopogon citratus*) TERHADAP
PERTUMBUHAN BAKTERI PLAK SUPRAGINGIVA**

**(THE INHIBITION OF LEMONGRASS EXTRACT (*Cymbopogon citratus*)
ON THE GROWTH OF SUPRAGINGIVA PLAQUE'S BACTERIA)**

ABSTRACT

Background. Dental plaque is an accumulation of thin film on the outer surface of tooth. This mainly consists of microorganisms, most of which are bacteria. There are many ways to prevent the plaque's formation in the tooth surface. Nowadays, herbal therapy is oftenly used as an antibacteria agent to inhibit microorganism's growth. The herb used in this study is lemongrass extract (*Cymbopogon citratus*). Lemongrass extract contains some active agents which are potential as an antimicrobial such as citral and polyphenol (tannin and flavonoid). **Purpose.** The aim of the study is to find out the minimum inhibitory concentration of the lemongrass extract (*Cymbopogon citratus*) on the growth of supragingiva plaque's bacteria. **Method.** This research was done in-vitro experiment using agar disc diffusion method. The extract were diluted into concentrations of 100%, 90%, 80%, 70%, 60%, 50%, 40%, 30%, 20%, and 10%. The inhibitory zones were recorded in millimeters and analyzed using One-Way ANOVA test. **Result.** The result showed that antibacterial activity was active on supragingiva plaque's bacteria with minimum inhibitory concentration of 20%. From statistical test showed there were significant differences of inhibitory zones ($p < 0,05$) from each concentration. **Conclusion.** Lemongrass extract began to inhibit the growth of supragingiva plaque's bacteria at a concentration of 20%.

Keywords: lemongrass extract (*Cymbopogon citratus*), dental plaque, mimimum inhibitory concentration.