

**ANTIMICROBIAL ACTIVITY OF *Pandanus amaryllifolius*  
AGAINST *Pseudomonas aeruginosa*, *Bacillus subtilis* AND  
*Shigella dysenteriae***

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This Final Year Project Report entitled “**Antimicrobial Activity of *Pandanus amaryllifolius* Against *Pseudomonas aeruginosa*, *Bacillus subtilis* and *Shigella dysenteriae***” was submitted by Nur Mimi Furzanie Binti Mangsor@Mansor, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

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## ABSTRACT

### **ANTIMICROBIAL ACTIVITY OF *PANDANUS AMARYLLIFOLIUS* AGAINST *PSEUDOMONAS AERUGINOSA*, *BACILLUS SUBTILIS* AND *SHIGELLA DYSENTERIAE***

Pandan wangi (*Pandanus amaryllifolius*) is commercially being used worldwide and believed to have an antimicrobial potential against the pathogenic bacteria. The ultimate objective of this study was to evaluate the antimicrobial activity of *P. amaryllifolius* against Gram positive bacteria and Gram negative bacteria which can acts as plant-derived antibiotics. Ethanol and aqueous extract were used to observe the antimicrobial activity of the plant. Each of the extract was tested against three bacteria which are *Pseudomonas aeruginosa*, *Bacillus subtilis* and *Shigella dysenteriae* by using disc diffusion method. However, both of extraction showed no significant antimicrobial activity against the bacteria where there is no zone of inhibition formed compared to the common antibiotic used in the study. For further research, the method used can be improved by using other solvents extract instead of ethanol and water. Besides that, it is also suggested to use different medicinal plants as a replacement of *P. amaryllifolius* to combat the pathogenic bacteria.