ABSTRACT

Fabrian Charlie Nugroho (11320110009)

BACTERIA *Bacillus amyloliquefaciens* POTENTIAL FOR DECOLORIZING *MALACHITE GREEN DYE*

(xiii + 38 pages: 5 figures; 4 tabels; 7 appendixes)

Residual malachite green dye is often pollutes the environment. Therefore, in recent years, the use of microbial agents to decolorize industry textile dye is a very popular alternative. This study was designed to evaluate the collection of *Bacillus amyloliquefaciens* at Pelita Harapan University to decolorize malachite green dye. Decolorization ability of *B. amyloliquefaciens* was evaluated using solid and liquid media, decolorization process is also analyzed by TLC and UV-VIS spectrophotometer. The results showed that some strains of *B. amyloliquefaciens* decolorize MG in solid and liquid media, so it could indicate that *B. amyloliquefaciens* can be used as environmentally friendly remediation agent for malachite green dye (MG). The results also showed that malachite green biodegradation process produces several products metabolites when it was analyzed by UV-VIS spectrophotometer and TLC.

References: 22 (1996-2014).
Keywords: *B. amyloliquefaciens, decolorization, malachite green.*