

## ANTIBACTERIAL SUSCEPTIBILITY OF *Bacillus subtilis* ISOLATED FROM SHRIMP POND AND FISH POND SEDIMENT

ISA MAHENDRA

### ABSTRACT

The aim of this research was to know the characters of *Bacillus subtilis* isolated from shrimp pond and fish pond sediment, their susceptibility to antibacterial agents and whether there were any difference of susceptibility between both samples. Six isolates of both samples have characteristics like rod shaped, Gram positive, unchained, glucose and sucrose fermented positive, release catalase enzyme, unreleased urease enzyme, H<sub>2</sub>S negative, didn't produce indole, motile, and hydrolyze starch. The result of antibacterial susceptibility test showed that *Bacillus subtilis* susceptible to *Penicillin*, *Ampicillin*, *Gentamicin*, *Ciprofloxacin*, *Oxytetracyclin* and *Sulfamethoxazole*. There were no significant difference among of antimicrobial agents except *Gentamicin*. The wide range of sensitivity indicate that *Bacillus subtilis* safe and can be considered as candidate of probiotics.

**Keywords :** *Bacillus subtilis*, antibacterial susceptibility, probiotic.