

Department of Microbiology, School of Medicine, Universitas Muhammadiyah Yogyakarta, Jl. Brawijaya, Tamantirto, Kasihan, Bantul, Yogyakarta, Indonesia, 55183.

*Corresponding E-mail: lilis_fkumy@yahoo.co.id

LYOPHILIZED OF *BACILLUS THURINGIENSIS* SOIL ISOLATE EFFECTIVE AGAINST *AEDES AEGYPTI*

Abstract

Yogyakarta is one of dengue hemorrhagic endemic areas and every year the incidence always fluctuates. Until now this disease has no medication and vaccine, so an effective way to overcome it through the control of *Aedes aegypti* mosquitoes. *Bacillus thuringiensis* is a gram-positive bacteria that produces larvacid toxins. These toxins suppressed mosquito larvae population, but not pollute the environment, or kill other non-target organisms. The objectives of this study was to investigate the effect of lyophilization on the pathogenicity of *B. thuringiensis* isolated from several soil samples in Yogyakarta against *Aedes aegypti* larvae in vitro. This research is a laboratory experimental research. Subjects was *Bacillus thuringiensis* soil isolate from Yogyakarta City. The bacteria were lyophilized and then tested its pathogenicity every 4 weeks against *Aedes aegypti* larvae. The gold standar used *Bacillus thuringiensis* H-14. The results showed that *Bacillus thuringiensis* soil isolate from Yogyakarta area has a high effectivity as larvacide against *Aedes aegypti*