

Potential Of Endophytic Fungi Isolates From Vetiver (*Vetiveria zizanioides* Linn) As A Biolarvacide for *Aedes aegypti* L.

Novia Gesriantuti*, Israwati Harahap, Nofripa Herlina, Pat Putri

Dept. of Biology, Muhammadiyah University of Riau, Pekanbaru, Indonesia

*Corresponding E-mail: *noviagesriantuti@umri.ac.id

Abstract. Control of vector that causes Dengue Hemorrhagic Fever (DHF) is still reliable because until now there has not been found a cure for DHF. The existence of negative impacts resulting from the use of chemical pesticides causes the need to find alternatives to larvacides that are more environmentally friendly. Larvacides that have been developed are utilizing biological larvacides (biolarvacides). One organism that has potential as a larvacide is endophytic fungi. This is based on the probability that the endophytic fungi that remain in plants have the ability to synthesize the same compounds as the host plant. Therefore, it is necessary to conduct research to determine the potential of secondary metabolites of endophytic fungi isolates from vetiver (*V. zizanioides*) as biolarvacides for *Aedes aegypti*. Secondary metabolites were extracted from pure endophytic fungi isolates (IH 8, IH 19 and IH 21). Larvicidal potential test against *A. aegypti* was carried out with a Completely Randomized Design with 3 replications. The concentrations of the crude extracts of secondary metabolites used were 2%, 4%, 8% and 16% and 0% as controls. Then the percentage of larvae, pupae and adult that died in each treatment was calculated. Observations were done for 8 days. The results showed that secondary metabolites of the three isolates have the potential to cause biolarvacidal for *A. aegypti*. The results showed that secondary metabolites of the 3 isolates had the potential as biolarvacides for *A. aegypti*. The effects include accelerating the development of larvae into pupae, causing pupae death, death of young adults and abnormal adults. The treatment with IH 08 and IH 21 at a concentration of 8% and 16%, larvae death has begun to occur on the first day.