

ABSTRACT

INFLUENCE OF GARLIC (*Allium sativum L.*) EXTRACT AS THE LARVICIDE OF *Aedes aegypti* LARVA

By

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World Health Organization reported a Dengue is mosquito-borne disease that is the fastest growth. There are 1 million that confirmed cases reported to the World Health Organization each year, but the WHO estimates that there are more than 50 million each year. The natural insecticides such as plant derived compounds are generally pest specific, biodegradable and harmless to the environment. Phytochemicals constituents from garlic extracts (*Allium sativum L.*) include allicin, dialil sulphide, and alkaloid can act as insect growth regulators. This research aimed to investigate the adults emergence inhibition of ethanol extracts from garlic of (*Allium sativum L.*) against *Aedes aegypti* larva.

Period of the research was from June to July 2014. Insect growth regulators activity of garlic extract (*Allium sativum L.*) was carried out using WHO protocol, third instar larvae are used for testing. At the end of the observation period, the impact is expressed as IE% (Adult Emergence Inhibition) based on the number of larvae that do not develop successfully into adults at various concentration (0,025-0,125%).

50% and 90% of adult emergence inhibition (IE₅₀ and IE₉₀) were 0,148% and 0,708% against third instar larvae of *Aedes aegypti*. Garlic extract effective as the larvicide of *Aedes aegypti* larva..

Keywords: *Allium sativum L.*, ethanol extract, *Aedes aegypti*, insect growth regulator