

# PENGARUH BIO-INSEKTISIDA EKSTRAK BUAHLERAK (*Sapindus rarak*) TERHADAP MORTALITAS LARVA *Spodoptera litura* SECARA IN VITRO

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## ABSTRACT

*Spodoptera litura* is one of the classic pests often cause crop failures in onion cultivation. In minimizing yield losses due to pest attacks organisme (OPT). Synthesis up to this pesticide is still a mainstay despite the potential negative effects from the use of synthetic pesticides much caused. Vegetable pesticide use has a good prospect, besides supporting the development of environmentally friendly, pest control (OPT), which focused on integrated pest management system (IPM).

According to Aminah, et al. Agency for Health Research and Development, Department of Health, Jakarta (2001), fruit lerak including bio-insecticides because they contain saponins and steroid hormones that affect the growth of mosquito larvae. Dead larvae in the fruit filtrate treatment showed damage to the wall lerak digestivus tract of 61.43% at 6 hours post topical observations. This is in accordance with the statement that saponins can lower the surface tension of mucosal lining of the tract digestivus larvae so that the walls became corrosive digestivus tract.

The purpose of this study is to determine the effect of bio-insecticides lerak fruit extract (*Sapindus rarak*) on mortality of larvae of *Spodoptera litura* by in vitro, and to know the different of the concentration of fruit extracts lerak (*Sapindus rarak*) was most effective against *Spodoptera litura* larvae mortality.

Type of experimental research is a real (True Experimental Research). Based on analysis of data obtained indicates that administration of fruit extract lerak (*Sapindus rarak*) significantly affected mortality grayak caterpillar (*Spodoptera litura*). Mortality rates generated by treatment of 0% (control) reaches 0%, 30% to 35%, 35% to 45%, 40% treatment reached 53.75%, 45% treatment reached 61.25%, and 50% achieved treatment 71.25% of the population of caterpillars tested. From these data we can conclude that the fruit extract lerak (*Sapindus rarak*) the effect on mortality of larvae of *Spodoptera litura* and at a concentration of 50% was the most effective.