The Effectiveness of Papaya Leaves Extract (*Carica papaya* L.) In Inhibiting The Development of *Plutella Xylostella*

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ABSTRACT

Plutella xylostella L. a type of insect that undergoes perfect metamorphosis with four life stages, namely eggs, larvae, pupae and imago. *P. xylostella* L. attacks can reduce the quantity and quality of the harvest. The use of botanical pesticides to control pests has benefits for health and the environment. Old and young papaya leaves can be used as botanical pesticides that contain papain, a content found in papaya leaves that is toxic to caterpillars and sucking pests. The purpose of this study was to test the effectiveness of papaya leaves extract (*Carica papaya* L.) with the best concentration in killing pests and inhibiting the development of *P. xylostella* L. This study was conducted in the Plant Protection Laboratory, Faculty of Agriculture, UPN "Veteran" Yogyakarta. The research design used was a Completely Randomized Design (CRD) with 5 treatments, namely control, 5% young papaya leaves extract, 10% young papaya leaves extract, 5% old papaya leaves extract, and 10% old papaya leaves extract. The observation data were analyzed statistically using ANOVA, the results obtained showed significant results, so further testing was carried out in the form of a 5% LSD test. The use of 5% old papaya leaves extract had a significant effect on increasing mortality, decreasing pupae and imago formation, shortening the time to become a pupa, decreasing the appetite of *Plutella xylostella*.

Keywords: Papaya leaves extract, *Plutella Xylostella*, botanical pesticides.