THE EFFECTIVENESS OF LIME PEELS EXTRACT (*Citrus aurantifolia)* AND PAPAYA SEEDS EXTRACT (*Carica papaya*) IN AFFECTING BIOLOGICAL COMPONENTS OF *Plutella xylostella*

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ABSTRACT

Plutella xylostella pest that can damage pakcoy corps by attacking leaves up to 100%. The use of botanical pesticides is a safe alternative for health and the environment. Plants that can be used as botanical pesticides are papaya and lime. the content of secondary metabolite compounds in both extracts consisting of alkaloids, flavonoids, tannins, limonene is toxic to larvae. This study aimed to determine the effectiveness of papaya seeds extract *(Carica papaya*) and lime peels extract (*Citrus aurantifolia*) in affecting the biological components of *P.xylostella* L. This research was conducted at the Plant Protection Laboratory, Faculty of Agriculture, UPN "Veteran" Yogyakarta. This research methods was conducted with Completely Randomized Design (CRD) with 8 treatments, namely papaya seeds extract 5%, lime peels extract 5%, papaya seeds 10%, lime peels extract 10%, papaya seeds extract 2.5%+lime peels extract 2.5%, and papaya seeds extract 5% + lime peels extract 5%. Observation data were statistically analyzed using ANOVA 5%, if the results obtained showed significant then further tests were carried out in the form of the scott-knott test 5%. The use of extracts from 5% lime peels + 5% papaya seeds gave significantly increased mortality, reduced pupa and imago formation, shortened time to pupae, reduced feeding capacity of *Plutella xylostella*.

Keywords: papaya seeds extract, lime peels extract, *Plutella xylostella*, botanical pesticides