

**TOXICITY TEST OF BOTANICAL INSECTICIDES OF WOOD
VINEGAR AND GARLIC EXTRACT (*Allium Sativum L*) ON *Crocidolomia
pavonana F.***

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ABSTRACT

This study aimed to identify the effect of the application and how the toxicity works in wood vinegar, garlic extract and the combination of both against *Crocidolomia pavonana*, and determine the best insecticide in the treatment of *C. pavonana*. The research was carried out in June-August 2022 at the Plant Protection Laboratory, Faculty of Agriculture UPN "Veteran" Yogyakarta. The experiment was arranged in a completely randomized block design with a single factor with 12 treatments and positive (insecticide with active ingredient carbosulfan) and negative controls (water). Each treatment has 3 replications. The data obtained were analyzed for diversity with Analysis of Variance (ANOVA). The data obtained was carried out by the Orthogonal Contrast test to determine the significant difference between the treatment and control groups. The data obtained for each treatment were tested with the Duncan Multiple Range Test (DMRT) to determine the significant differences between the treatments. Wood vinegar and garlic extract as botanical insecticides and their combination can affect the increase in larval mortality, decrease in the percentage of feeding appetite, changes in body color and larval behavior patterns, and the percentage of pupa and imago formation decreases in *C. pavonana*. The way insecticides work as contact poisons is a better way of working than stomach poisons. The most effective use of botanical insecticides is a combination treatment of 5% wood vinegar and 12% garlic extract.

Keywords :Wood Vinegar, Garlic Extract, *Crocidolomia pavonana F*