

Conference Paper

Toxicity of *Barringtonia asiatica* L. (KURZ.), *Melia azedarach* L. and *Annona muricata* L. Seed Extract Mixture Against Larvae *Crociodolomia pavonana* F. (Lepidoptera:Pyralidae)

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Abstract

Crociodolomia pavonana is the main pest of Brassicaceae family. *Barringtonia asiatica*, *Melia azedarach* and *Annona muricata* are plants that have a potency for insect pest control. Their insecticidal activities include poisoning, antifeeding and inhibiting the growth of larvae. This study aimed to determine insecticidal activities of seed extracts of *B. asiatica*, *M. azedarach* and *A. muricata* and their mixtures against *C. pavonana* F. Experiment was carried out in the Laboratory of Pesticide and Application Techniques, Department of Plant Pests and Diseases, Faculty of Agriculture, Universitas Padjadjaran from August to November 2014. The experiment was arranged in a completely randomized desain (CRD) with 13 treatments and 3 replications. The treatments were the seed extract of *B. asiatica*, *M. azedarach*, *A. muricata* and their mixtures (1:1) at the concentrations of 0.1%, 0.5% and a control treatment. The results showed that the mixture of *B. asiatica* and *A. muricata* extract was effective to control *C. pavonana* larvae. At the concentration of 0.1%, it caused 100% larval mortality at 3 days after application. It had also antifeedant activity. It seems there is a synergistic effects between *B. asiatica* and *A. muricata* extract. Therefore, seed extracts of *B. asiatica*, *M. azedarach*, *A. muricata* and their mixtures have a potency to control *C. pavonana* larvae.

Keywords: *Annona muricata*, *Barringtonia asiatica*, *Melia azedarach*, *Crociodolomia pavonana*, extract mixture, mortality.

1. Introduction

Cabbage head caterpillar, *Crociodolomia pavonana* F., is one of the most important pests on Brassicaceae family such as cabbage, broccoli, cauliflower, mustard greens, and turnip [1]. The yield losses caused by this pest can reach up to 100% [2]. The common method to control the insect pests of cabbage plants is the use of synthetic insecticides.

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