## EFFECT OF THE ADDITION OF SESAME SEED AND CUBEB SEED EXTRACTS IN SOAPBERRY EXTRACT WITH VARIOUS STORAGE TIMES ON THE BIOLOGY OF THE PEST *Crocidolomia pavonana* IN CABBAGE

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## ABSTRACT

Cabbage is one of a plant commodity that has high economic value. One of the pest that attack cabbage plants is the Crocidolomia pavonana pest which can reduce the productivity and selling value of cabbage. The purpose of the study were to determine the best type of extract that added to soapberry extract which can affects the biology of C. pavonana pest and to determine how long the best storage time which still affects the biology of C. pavonana pests. The research was conducted at the Basic Laboratory of Plant Protection at the Universitas Pembangunan Nasional "Veteran" Yogyakarta from June to August 2022. The method was used Completely Randomized Design (CRD) 1 factor with 9 treatments, each treatment was repeated 4 times. The data obtained were analyzed by ANOVA and to determine the difference between treatments then used Orthogonal Contrast test with a 5% significance level. Based on the results of the study, the addition of sesame seed extract and cubeb seed extract increased the mortality of C. pavonana larvae, if the mortality was high, then the average percentage of pupae and imago formed was low. Botanical pesticides with all treatments did not inhibit eating activity. The longer the botanical pesticide solution is stored, the lower the toxicity will be. This shows that the best type of extract is the cubeb extract, and at 7 days the shelf life of the soapberry extract still affects the biology of *C. pavonana* pests.

**Keywords**: Cabbage, Crocidolomia pavonana, Soapberry, Sesame Seeds, Cubeb Seeds