

**KEMAMPUAN EKSTRAK DAUN SIRIH HIJAU DALAM  
MENURUNKAN SERANGAN HAMA LALAT BUAH (*Batrocera* spp.) DAN  
SERANGAN JAMUR *Colletotrichum acutatum* (ANTRAKNOSA) PADA  
TANAMAN CABAI MERAH (*Capsicum annum* L.)**

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**ABSTRACT**

One of the main pests and diseases in red chili cultivation is fruit flies and anthracnose. These pests and diseases cause fruit rot in chili fruit. One environmentally friendly control method is by applying vegetable pesticides such as betel leaf extract. The aim of this research is to determine the best concentration of betel leaf extract in controlling fruit fly pests and Anthracnose disease in Wonokromo, Pleret, Bantul, Yogyakarta from January to April 2023. This research method uses a Complete Randomized Block Design (RAKL) with 1 factor, namely E0 (control treatment); E1 (10% concentration of betel leaf extract); E2 (20% concentration of betel leaf extract); E3 (30% concentration of betel leaf extract); E4 (betel leaf extract concentration 40%); E5 (50% concentration of betel leaf extract). The data obtained were analyzed using Analysis of Variance (ANOVA) if there was a very significant effect from the treatment followed by a different test using the DMRT (Duncan's Multiple Range Test) method with a significance level of 5%. The results of the observations showed that there were significant differences (for each treatment) in the parameters of the number of fruit attacked by fruit flies, the number of fruit fly larvae, the intensity of fruit fly attacks (%), the number of fruits attacked by Anthracnose, the intensity of Anthracnose attacks (%), total fruit wet weight and the number of healthy fruits and there was no significant difference in the parameters of the incidence of Anthracnose Disease. The results of this research show that betel leaf extract can reduce fruit fly pest attacks and anthracnose disease. Several observation parameters in this research show that a 50% concentration of betel leaf extract is the best concentration in controlling fruit fly pests and anthracnose disease.

**Keywords:** Red Chili, Betel Leaf Extract, Fruit Flies, Anthracnose/Patek

