

**TEST OF COLOR VARIATION AND HEIGHT OF STICKY TRAPS ON
ABUNDANCE OF INSECTS AND INTENSITY OF PEST ATTACKS ON
BLACK SOYBEAN PLANTS (*Glycine soja* L Merrit.)**

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ABSTRACT

This study aimed to determine the effect of color and height of sticky traps on the abundance of insect pests and natural enemies trapped on black soybean plants and the intensity of pest attacks. The research was conducted in January - March 2023 at the Experimental Garden of the Faculty of Agriculture, UPN "Veteran" Yogyakarta, Wedomartani, Sleman, DIY and at the Plant Protection Laboratory, Faculty of Agriculture, Universitas Pembangunan Nasional "Veteran" Yogyakarta. This research used a randomized complete block design (RCBD) with 2 factors namely: first factor was trap color (W) with 4 levels i.e., W1: Yellow, W2: Green, W3: Blue, W4: Red and second factor was trap height (T) with 5 levels i.e., T1: 20cm, T2: 50cm, T3: 70cm, T4: 100cm and T5: 120cm. Parameters observed were identification of pest and natural enemies species, population abundance of insect pests and natural enemies, diversity index, pest attack intensity, plant height, number of filled pods, number of empty pods, total number of pods, fresh weight of pods, fresh weight of 100 seeds and dry weight of 100 seeds. Data analysis was carried out using variance analysis (ANOVA), followed by DMRT (Duncan Multiple Range Test) with 5% level. The results showed that in the parameter of pest attack intensity there was an interaction between the combination of color treatment and height of sticky traps at plant age 49, 56, 63 and 70 DAP. Yellow color with a height of 50cm is the treatment that attracts the most insect pest population and suppresses the intensity of pest attacks. The application of yellow color and a height of 50cm gave the best yield in the parameters of the number of filled pods, number of empty pods, total number of pods, fresh weight of pods, fresh weight of 100 seeds and dry weight of 100 seeds.

Keyword: *black soybean, insect, sticky traps, color, height.*