

**APPLICATION OF *Beauveria bassiana* WITH THE ADDITION OF NEEM
AND PAPAYA LEAVES EXTRACTS AGAINST COFFEE BEEN BORER
(*Hypothenemus hampei*) MORTALITY**

Oleh: Muhammad Irsyad Abdullah

Dibimbing oleh: Chimayatus Solichah dan Siwi Hardiastuti

ABSTRACT

Coffee is one of the plantation commodities with high economic value. One of the common problem in coffee production is pests and pathogens attack namely coffee been borer (*Hypothenemus hampei*). An alternative control for the coffee been borer (CBB) is biological control, by using biological agents such as entomopathogenic fungi and botanical pesticides. The combination of biological agents with botanical pesticides is widely developed to increase the effectiveness of pest control. This study tested the effectiveness of a combination of *B. bassiana* fungus at a concentration of 1×10^8 conidia/mL with neem and papaya leaf extracts. Data analysis was conducted using ANOVA and further Scott Knott test at a 5% level. The results showed that the addition of neem and papaya leaf extracts did not affect the growth of *B. bassiana* spores. The addition of neem and papaya leaf extracts was able to increase pest mortality, LT50, and total death time.

Keyword: *Hypothenemus hampei*, *Beauveria bassiana*, botanical pesticides, neem leaves, papaya leaves.