

***EFFECT OF APPLICATION OF BEAUVERIA sp. ON THE INTENSITY OF
ARMYWORM ATTACK (Spodoptera frugiperda) ON WAXY CORN (Zea mays
var. Ceratina)***

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ABSTRACT

The fall armyworm (Spodoptera frugiperda) attacks almost all parts of maize plants and can cause yield losses of more than 50% if not effectively controlled. The use of synthetic insecticides has the potential to cause pest resistance, pesticide residues, and environmental pollution. Therefore, the use of the biological control agent Beauveria sp. is considered an alternative control method that is more environmentally friendly. This study aimed to analyze the effects of Beauveria sp. application on fall armyworm infestation intensity, plant growth, and yield of glutinous maize. The research was conducted from September to November 2025 in Kaliurang Village, Summersari District, Jember Regency, at coordinates - 8.151740, 113.722421. The study compared maize plants treated with the biological control agent Beauveria sp. and the synthetic insecticide methomyl, with application doses of 10 g/L for Beauveria sp. and 7 g/L for methomyl. The observed variables included plant height, number of leaves, pest infestation intensity, and ear weight. The data were analyzed using the Mann–Whitney test. The results showed that the application of Beauveria sp. at a concentration of 10 g/L resulted in better vegetative growth, particularly in terms of the number of leaves. For the Beauveria sp. and methomyl treatments, plant height and ear weight did not show significant differences. In terms of infestation intensity, methomyl insecticide at a dose of 7 g/L was more effective in reducing S. frugiperda infestation intensity by up to 37% throughout the observation period compared with Beauveria sp.

Keywords: *Beauveria sp., Methomyl, Fall Armyworm, Waxy Corn.*