

***EFFICACY OF DIGESTIVE BACTERIA OF *Spodoptera frugiperda* AS A BIOLOGICAL AGENT FOR STEM ROT DISEASE AND CORN PLANT GROWTH***

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***ABSTRACT***

*Stem rot disease (*Fusarium verticillioides*) and fall armyworm (*Spodoptera frugiperda*) pose major threats to glutinous corn cultivation. However, these pests may harbor antagonistic bacteria in their digestive tracts that can potentially be utilized as biological control agents against stem rot disease. This study aimed to evaluate the *in vivo* effectiveness of armyworm digestive bacteria as biological control agents for stem rot disease and as potential growth promoters in glutinous corn. The research was conducted at the Plant Protection Laboratory and the Integrated Agriculture Academic Support Unit. This study used a non-factorial CRD design with 5 treatments and 4 replications. Data were analyzed using ANOVA and further tested using Dunnet's test at 5%. The bacterial with isolate codes IS3A2 and IS5A4 demonstrated disease control efficacy values of 57.51% and 55.74%, respectively. These efficacy levels were significantly different from the negative control but not significantly different from the positive control (synthetic pesticide). However, none of the treatments had a significant effect on plant height.*

***Keywords:*** *Biological Agens; Corn; Fall ArmyWorm; Fusarium; Stem rot*