Insecticidal Effects of the Wettable Powder Formulations of Plant Extracts on Cotton Bollworm, Helicoverpa armigera (Lep. Noctuidae)

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Abstract : Due to the numerous side effects of chemical pesticides, in this research, to provide the practical use of herbal compounds, the extracts of the two plants of thyme and eucalyptus were extracted by using water, 70% ethanol, and n-hexane solvents via percolation method and then formulated as wettable powders. The mortality rates of cotton bollworm (Helicoverpa armigera) were investigated under different concentrations of ethanolic, hexanic, and aqueous extracts of thyme and eucalyptus and their formulations in laboratory conditions. The results showed that the used concentrations, types of solvents, and sorts of formulations significantly affected the mortality rates of cotton bollworm larvae during the exposure period of 24 h.

Keywords : cotton bollworm, eucalyptus, formulation, thyme, toxicity Conference Title : ICAACS 2023 : International Conference on Agriculture, Agronomy and Crop Sciences Conference Location : New York, United States Conference Dates : October 09-10, 2023