

Feasibility Study on the Bioattractants from Pandanus Palm Extracts for Trapping Rice Insect Pests

Authors : Pisit Poolprasert, Phakin Kubchanan, Keerati Tanruean, Wisanu Thongchai, Yuttasak Chammui, Wirot Likittrakulwong

Abstract : Rice insect pests are problems to rice production. Use of chemicals to minimize these problems of insect pests in paddy field can lead to the residue and affect the health of farmers. Therefore, botanical extracts applied for controlling rice serious enemies should be promoted especially use of plant extract as attractants to lure insects. This research aimed to feasibility study of bioattractants from pandanus palm extracts for trapping insect pests using two different trap models, including plastic bottle and yellow sticky traps. Two main growth and development stages of rice, namely tillering and booting stages, were selected and trapped. The results from both trap models revealed that four rice insect species, including *Orseolia oryzae* (Wood-Mason), *Nilaparvata lugens*, *Recilia dorsalis*, and *Nephotettix nigropictus* from three families (Cecidomyiidae, Cicadellidae and Delphacidae) and two main orders (Diptera and Hemiptera) were exhibited. All rice insect species mentioned could be found from the yellow sticky trap that were higher than in the bottle trap in which only *O. oryzae* could be only trapped. From this survey, it was indicated that the yellow sticky trap coated with pandanus palm extracts had a promising potential to use as an attractant for the detection of rice paddy insects in the next future.

Keywords : pandanus palm, bioattractant, bottle trap, yellow sticky trap

Conference Title : ICABB 2023 : International Conference on Applied Bioscience and Biotechnology

Conference Location : Singapore, Singapore

Conference Dates : January 09-10, 2023