EVALUATION OF EXCITO-REPELLENCY SYSTEM FOR TESTING BEHAVIORAL FEEDING RESPONSES OF AEDES AEGYPTI (L.) TO DELTAMETHRIN

Wasana Boonyuan[1], Chitapa Ketavan[1], Suraphon Visetson[2], Philippe Barbazan[3] Michael J. Bangs[4] and Theeraphap Chareonviriyaphap[1]

[1]Department of Entomology, Faculty of Agriculture, Kasetsart University, Bangkok 10900, Thailand
[2]Department of Zoology, Faculty of Science, Kasetsart University, Bangkok, 10900 Thailand
[3] Institut de Recherche pour le Développement, IRD -UR 178, Paris, France
[4]Navy Disease Vector Ecology and Control Center, 2850 Thresher Avenue, Silverdale, WA 98315, U.S.A.

BACKGROUND: Understanding the behavioral response of mosquito vectors is important to control. Chemical control is the one of effective method for prevent and reduce disease transmission. Recently, no study have been performed to study on the feeding behavioral responses to insecticide in Ae. aegypti strains.

OBJECTIVE: The aim of this study was to analyze the response of unfed female mosquitoes either unmated or mated to residue deltamethrin using an excito-repellency system in the presence and absence of live host stimuli.

METHODS: Unmated and mated six day-old Ae. aegypti females from Kanchanaburi Province were used in this study. The excito-repellency system was used for analyze the response of unfed female mosquitoes in the presence and absence of live host stimuli with different concentrations at LC_{50}, LC_{75} and LC_{90} of deltamethrin.

RESULTS: In contact trial, unmated Ae. aegypti showed higher escape rates at LC_{90} deltamethrin compared to mated and all other concentrations with host attractant. In contrast, mated females exhibited higher escape rate at LC_{75} without host attractant. In non- contact trial, the higher escape rates was observed at LC_{50} both with and without host in unmated.

CONCLUSIONS: The effect of chemical interfered blood feeding behavior at the higher dose in contact trial. Moreover, we found the insemination status had influenced on blood feeding response of mosquitoes to chemical.

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