ABSTRACT

Mosquitoes are lethal creatures that are responsible for spreading many pathogens and parasites in humans. They are responsible for many Disease epidemics worldwide like Malaria, Dengue, Chikungunya, Zika virus, Filariasis and West Nile Fever. Many techniques have been used to eradicate these disease vectors since 20th century. Use of insecticides i.e. chemical control was the most common remedy against these disease vectors. But in later studies scientist discovered that mosquitoes are gaining resistance against these chemicals due to excessive use of insecticides. Recent studies are focussed on two new strategies that is biological control and attractant based mosquito traps. Biological control proved to be an effective control mechanism but it is time taking process and still under trials. The cheapest and most easy control is the latest type i.e. mosquito traps that targets adult mosquito population and this method is used for small population of mosquitoes. In this study I designed mosquito traps with different bait solutions. Basically two types of traps were designed i.e. simple traps (Type-1, Type-2 and Type-3) and modified miniature traps (Type-1, Type-2 and Type-3). In Simple traps the number of insects trapped in type 1, Type 2 and Type 3 were; 15, 9, 8 respectively. In modified miniature traps the number of collected insects was: Type 1, Type 2 and Type 3 were: 34, 26, and 19 respectively. The results showed that modified miniature traps with red LED were most effective as they captured maximum number of insects and the best chemical bait was brown sugar and yeast solution. In future these traps can be used for mass trapping of mosquitoes and provide an alternative for chemical control.