

Abstract

This report illustrated the insecticide susceptibility of both *Aedes albopictus* (AA) and *Aedes aegypti*(AE) collected from Pingtung county. The AA strains collected from Wendan and northern Pingtung showed low susceptibility to 0.10% Propoxur. Although the low mortality of AA strains from Tungkung and Wendan was found when treated them with 1% Fenitrothion, this insecticide was highly efficient to kill 100% of all the tested AE strains. The treatment of 0.75% Permethrin showed over 98% mortality to all AA strains, while the low efficacy occurring to AE strains form Tungkung, northern and central Pingtung. This insecticide will no be recommended when concerning the indoor spray. The High efficacy of 0.05% Deltamethrin was detected to both AA and AE strains in Pingtung area. Almost 100% mortality was found when all AA strains treated with 0.05% cyhalothrin, which along with 0.15% Cyfluthrin are low efficient to control AE vector in Pingtung, especially in Tungkung area. Less than 10% mortality of AE strains occurred when treating with 0.50% Etofenprox while 90% mortality to AA strains can be reached. It also seems not suitable for indoor spraying. In the tests of susceptibility of *Aedes* larvae, relatively to the control, the AE strain from central Pingtung showed 12.1 resistance ratio to 92% Permethrin. The resistance ratios of AE strain from Tungkung were 14.8, 11.6 and 29.4 under the treatment of 92% Permethrin, 90% Prallethrin and 95% Cypermethrin, respectively. Those data in this report can be carefully concerned during the practice of chemical control of dengue vectors.

Keywords : dengue fever ; vectors ; insecticide resistance