

ABSTRACT

The Status of Organophosphate Insecticide Resistance in Strains of *Aedes aegypti* (Linn.) (Diptera: Culicidae) from Trinidad and Tobago

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Twenty-seven strains of *Aedes aegypti* (Linnaeus) were collected from throughout Trinidad and Tobago and were bioassayed for sensitivity to five organophosphate insecticides. These were temephos, malathion, fenthion, fenitrothion and bromophos. The data were analysed using computer probit analysis and resistance ratios [RR] were calculated. Low to moderate levels of larval resistance to temephos [RR 0.8-6.3], malathion [RR 0.8-3.8], fenthion [RR 0.7-6.7], fenitrothion [RR 0.7-3.2] and bromophos [RR 0.9-6.4] were observed. Cross-resistance between temephos/fenthion [rsq = 0.6219] and temephos/fenitrothion [rsq = 0.6117] was indicated in larvae. Adults showed low to moderate levels of resistance to malathion [RR 0.9-4.5]. Malathion-sensitivity in adults had a positive linear relationship to temephos-sensitivity in larvae, of the same cohort, but the responses of larvae and adults were not highly co-dependent [rsq = 0.6157]. The significance of these results in vector control programmes in the Caribbean is discussed.