

ABSTRACTS FOR ORAL PRESENTATIONS

Entomological Surveillance on Resistance of *Aedes* to Aqua K-Otherine at Taman Sri Rugading, Tuaran, Sabah, Malaysia

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Background: Dengue fever and its fatal complications have made a comeback since its control in the 1990's. The Flavivirus has evolved into 4 serotypes DEN 1,2,3,4 which can be passed on by the mosquitoes for 7 generations for each serotype. This communicable disease is predominantly confined to urban areas. Quick control of the spread of the disease will prevent it from becoming an epidemic. The two species mosquitoes involved have different behaviours. The *Aedes aegypti* is an indoor vector which breeds in clean, clear and calm freshwater. The *Aedes albopictus* is an outdoor breeding mosquito which breeds in stagnant waters. Surveillance of the areas prone to outbreaks is vital. One of the roles of the entomologist is to monitor the vector for resistance to the insecticides. Localities that have been subjected to recurrent outbreaks will have vector which develop resistance to the insecticides used.

Objective: To demonstrate resistance of the *Aedes* mosquitoes to the water-based insecticide – Aqua K-Otherine that was used as a fogging agent 24 hours earlier. **Method:** Placing 120 ovitraps randomly indoors and outdoors in 9 identified blocks. **Results:** There is no demonstrable evidence of *Aedes* mosquito resistance in this locality as the larval counts were less than 1,000 larval eggs. **Conclusion:** Entomological surveillance of *Aedes* mosquito for insecticides resistance is vital in high-risk dense urban residential areas as increased urban population and poor hygiene practices will result in recurrent episodes of lethal dengue outbreak and future resistances to the insecticides used.

