

# Abstract

The objective of this research is to study the influence of insecticide droplet size to the efficiency of mosquito control in order to distinguish the meaning of space spray and residue spray in dengue vector control. Tested Aedes aegypti Tainan strains were obtained from the CDC laboratory colony and were treated with spray tower method, Ultra-Low-Volume spray, thermol fogging, mistblower and pressure sprayer. Droplet size of 7 kinds of sprayer with different nozzle or flow rate were analyzed by LaVision Sizing Master. Aedes aegypti treated with 23 commercial product insecticides each sprayed by 6 different aperture (10、20、35、40、55、65 $\mu$ m) separately, resulted that the larger the nozzle use, the lower the mortality showed. Although, the droplet size between the space and residue sprayer were significant different, but the efficiency of mosquito control were both satisfied.

**Keyword :** droplet size、Aedes aegypti、spraye