EFFICACY OF COMMERCIAL HOUSEHOLD INSECTICIDE AEROSOL SPRAYS AGAINST *AEDES AEGYPTI* (LINN.) UNDER SIMULATED FIELD CONDITIONS

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Abstract. A simulated field study on the efficacy of commercial household aerosol insecticides was conducted. The bioefficacy of three pyrethroid aerosols, designated as PA1, PA2 and PA3, was tested in cabins furnished to simulate bedroom conditions. Each aerosol product was tested against lab-bred *Aedes aegypti* mosquitoes based on the insecticide manufacturers' recommended dosages. Ten cages with mosquitoes were placed in the following locations: one cage in the middle of the room; two each on and underneath the bed; three each placed inside, behind and on top of the wardrobe; and four placed on and in the desk. With the desk, each cage was placed inside each of three drawers (totally closed, partially closed and opened). Prior to the experiments, the discharge rate of each aerosol can was determined. Ten to 20 lab-bred 2-5 day-old sugar-fed *Ae. aegypti* adult mosquitoes were placed inside the test cages. The aerosol was then discharged into the cabin at the recommended dosage. After 30 minutes, the mosquitoes were transferred into clean paper cups and their mortality recorded after 24 hours. All the aerosols induced complete or very high mortality in the caged *Ae. aegypti* females, except in the cages hidden completely inside the drawers and wardrobes. Insecticide droplet analysis indicated variable uniformity of the droplets was produced. The aerosol insecticides were effective against mosquitoes provided they were used in accordance with the manufacturers' recommendations.

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