

4-4. Laboratory Evaluation of the efficacy of an Insect Growth Regulator Pyriproxyfen against *Anopheles sinensis* (Diptera, Culicidae) Larvae

LEE, Won-Ja* Jong Hwa KIM, and Dong-Kyu LEE¹

Division of Medical Zoology, National Institute of Health;

¹*Department of Biological Sciences, Kosin University,*

The granular formulation of 0.5% pyriproxyfen (Sumilarv[®]) is a mosquito larvicide known as an insect growth regulator. It was tested on evaluation of residual activity for killing and/or emergence inhibition against 3rd stage larvae of *Anopheles sinensis* at a laboratory. The mortality rates at dosages of 0.01 mg/l, 0.05 mg/l and 0.1 mg/l were over 80% until 28 days after treatment, which were test period, except 60.9% to 79.7% at the three dosages in the first seven days after treatment and 70.4% at 0.01 mg/l in 8~14 days after treatment. The residual activity was gradually increased after treatment because the granular formulation of pyriproxyfen has a gradual solubility, although mortality rates were not reached 100% at the three dosages in seven days. The *An. sinensis* larvae and pupae treated were not observed after seven days in each period group after introduction of pyriproxyfen. Therefore, it is necessary to carry out further study on their mortality and emergence inhibition rates of *An. sinensis* after seven days.