

2-4. Mosquito Control Evaluation of an Insect Growth Regulator, Pyriproxyfen, against *Culex pipiens pallens* Larvae in Marshes and a Pond

Dong-Kyu Lee

Department of Biological Sciences, Kosin University

Mosquito control evaluation of the granular formulation of 0.5% pyriproxyfen was undertaken in three marshes and a pond in Busan during the period of July through September, 2001. In marsh condition where *Culex pipiens pallens* were naturally breeding, the treatment of pyriproxyfen produced over average 95% mosquito larval and pupal reduction at the dosage of 0.05 mg/l for first 4 weeks in spite of heavy precipitation (total 274.4 mm) in the period. Reduction rates of 72.6% and 32.3% appeared in 5th and 7th weeks after treatment probably due to heavy precipitation and flood at 6th week. However the high reduction rates continued again at 8th week showing 94.5% reduction because of slow releasing of pyriproxyfen granular formulation. In second treatment of pyriproxyfen at the same marshes and dosage at August 29, the complete mortality was obtained at the first and third weeks after treatment. Also, a satisfactory level of *Cx. pipiens* larval and pupal reduction was observed with 96.6% at 4th week. In pond assessment where *Cx. pipiens* was predominantly breeding in the pond of 6.4m², the treatment of pyriproxyfen at the dosage rate of 0.05 mg/l produced 100.0% reduction from 1st week through 4th week after treatment. In second treatment of pyriproxyfen at the same pond and dosage at August 29, 100.0% reduction was obtained at the first and second weeks. The treatment resulted in 84.4% and 97.9% reduction of mosquitoes at 3rd and 4th weeks, respectively.