

M.S.(Agriculture) **Entomology**

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Monitoring of house fly, *Musca domestica* L. (Diptera : Muscidae), population in 5 different locations i.e., Nonghoy Market, Muangmai Market, Borriboon Market, Suthep Market and Mae Hea Research Station and Training Center, Faculty of Agriculture, Chiang Mai University were conducted from July 1997 to June 1998 using sweeping method. Out of the 5,928 flies collected, a total of 12 species were identified as *M. domestica*, *Chrysomya megacephala*, *Lucilia cuprina*, *Musca sorbens*, *Orthellia* sp., *Stomoxys calcitrans*, *Coenosia* sp., *Parasarcophaga* sp., *Muscina stabulans*, *Rhinina* sp., *Dichaetomyia* sp., *Gymnodia* sp., and 3 other unidentified species. *M. domestica* was the predominant species (83.69%) and its maximum population collected was in May. The secondary largest species was *C. megacephala* (13.68%) and its population attained the peak in August, while minimum populations of all species were exhibited during December to February.

The efficacy of 6 synthetic pyrethroids i.e., bifenthrin 2.5 % EC, deltamethrin 2.5 % EC, permethrin 38.4 % EC, thetacypermethrin 5 % EC, zetacypermethrin 10 % EC and etofenprox 20% WP, were tested on maggot of *M. domestica* using two different methods, dipping and treating at laboratory, Department of Entomology, Faculty of Agriculture, Chiang Mai University. The condition was at 30 ± 1 and 75 % relative humidity. Three replicates were done for each concentrations of each agent. The LC_{50} rates at 24 hours of deltamethrin 2.5% EC, bifenthrin 2.5% EC, etofenprox 20% WP, thetacypermethrin 5% EC, permethrin 38.4% EC and zetacypermethrin 10% EC by dipping were 512, 1,065, 2,542, 2,697, 4,659 and 5,419 ppm, respectively, whereas the LC_{50} rates at 24 hours by treating larval diet method were 247, 415, 159, 894, 254 and 1,003 ppm, respectively.