عنوان مقاله:

Effect of Lufox, a chitin synthesis inhibitor on Culex pipiens

محل انتشار:

دومین کنگره بین المللی بیماریهای منتقله بوسیله ناقلین و تغییرات آب و هوایی و چهارمین کنگره ملی حشره شناسی پزشکی ایران (سال: 1398)

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خلاصه مقاله:

Background: Culex pipiens is known a vector of the West Nile, Rift Valley Fever Viruses in the world. Culex pipiens and Cx. quinquifasciatus belonging to Cx. pipiens complex distributed in Iran.Objectives: This study was done to determine the larvicidal and adult emergence inhibition effect of Lufox on Cx.pipiens in insectary condition.Materials and Methods: The susceptibility status of field strains of Cx.pipiens were determined at Culicidae Insectary, Medical Entomology and Vector control, SPH,TUMS using WHO standard larvicidal and recovery bioassays test. The adult emergence inhibition (IE %) and Lc50, Lc90 values were obtained using Probit analysis. The laboratory-reared mosquito larvae, F1 of field-collected mosquitoes are exposed for 24 h to 48 h in water treated with the larvicide at various Concentrations, as 0.001-1000ppm, within its activity range, and mortality is recorded until the emergence of adults. LC50, LC90 values and the adult emergence inhibition (IE %) were obtained using Probit analysis with SPSS version 16.0 software.Results: The Lc50 and Lc90 values for Lufox were measured as 4.09, 8.20 ppm respectively. More than 99.2% of the adult emerging inhibitor effect was found in larvae recovered from treatments with test concentrations ranging from 1–1000 ppm.Conclusion: It is the first formal entomological research which defines LC50, LC90 values and the adult emergence inhibition of Lufox on Cx.pipiens in Iran. Periodic interval susceptibility test using of IGR insecticides in semi field and field conditions could be still suggested

کلمات کلیدی:
.Culex pipiens, Lufox, Susceptibility, Iran