

عنوان مقاله:

Biological parameters of *Trialeurodes vaporariorum* (Hemiptera: Aleyrodidae) exposed to lethal and sublethal concentrations of Calypso

محل انتشار:

Journal of Crop Protection, دوره 6, شماره 3 (سال: 1396)

تعداد صفحات اصل مقاله: 11

نویسندگان:

Seyed Ali Safavi - Department of Plant Protection, Faculty of Agriculture, Urmia University, Urmia, Iran

Milad Bakhshaei - Department of Plant Protection, Faculty of Agriculture, Urmia University, Urmia, Iran

خلاصه مقاله:

Efficacy of the neonicotinoid insecticide, Calypso® was studied on eggs, nymphs and adults of *Trialeurodes vaporariorum* Westwood, using a leaf disc bioassay method. Concentrations from 0.15 to 0.8 ml/l were applied by systemic-contact method. Nymphs were more susceptible than eggs and adults, and LC_{50} and LC_{30} values were estimated to be 0.465 and 0.263 ml/l, respectively. Also, the longevity and fecundity of exposed females was reduced compared to control. Moreover, the demographic parameters were adversely influenced compared to control. The intrinsic rate of increase (r_m) was significantly decreased to 0.132 and 0.139 day⁻¹ at LC_{50} and LC_{30} level, compared to control (0.152 day⁻¹). Other life table parameters (R_0 , λ , T , and DT) were also significantly lower in the treated insects. Sublethal concentrations of Calypso® may reduce the insecticide residuals on greenhouse crops and reduce the resistance development in greenhouse whiteflies. Therefore, these concentrations may be applicable in the management of *T. vaporariorum* after complementary studies.

کلمات کلیدی:

Life table parameters, whitefly, Calypso®, sublethal concentrations

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