

عنوان مقاله:

(Effects of different insecticides on egg, larva and adult of tomato leaf miner, *Tuta absoluta* (Lepidoptera: Gelechiidae)

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خلاصه مقاله:

Tomato leaf miner, *Tuta absoluta* (Meyrick), is a serious pest of the greenhouse in Iran. Chemical control is the main method in high infestation conditions to deal with this pest. In this study, the efficacy of five insecticides from different groups consisting of abamectin, spinosad, imidacloprid, indoxacarb and cypermethrin was examined on the egg, larvae and adult stages of *T. absoluta* in laboratory conditions. The LC_{50} values of the insecticides were estimated at the larval stage. The results showed that abamectin had the most and imidacloprid had the least ovicidal effect. None of the tested insecticides had a satisfactory effect on the adult stage. The maximum adulticide impact was ۴۰% for spinosad. Abamectin with ۰.۴۵ mg ai.l^{-۱} of LC_{50} value had the most toxicity and imidacloprid with ۹۸۰ mg ai.l^{-۱} of LC_{50} value had the least toxicity on the third instar larvae. According to the findings, abamectin and spinosad had the highest toxicity against three developmental stages (egg, larvae and adults) of the pest and can be used in infested tomato fields, when all life stages of *T. absoluta* are present at the same time. Meanwhile, it is recommended to use selective insecticides such as indoxacarb, when natural enemies are very active or the population of the tomato leaf miner is mostly at the larval stage.

کلمات کلیدی:

abamectin, cypermethrin, imidacloprid, indoxacarb and spinosad

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