

Imidacloprid as a soil application against whitefly *Bemisia tabaci* in greenhouse cucumber

V. Baniameri, A. Sheikhi

Plant Pests and Diseases Research Institute (PPDRI), P. O. Box: 19394/1454, Tehran, Iran.

Abstract: *Bemisia tabaci* is a serious pest of cucumbers in all greenhouses in Iran. The effect on *B. tabaci* of three different concentrations of Imidacloprid (Confidor 350 SC) (0.25, 0.50, and 0.75 ml/l) and a control treatment was tested in soil application. A Completely Randomized Block Design with 4 replications was applied. The percent mortality of larvae and decrease of eggs were analyzed after correcting by the Henderson-Tilton formula. After 7 days, the mean effect of 0.25ml/l of Imidacloprid on eggs and larvae were 58.87 ± 6.42 % and 43.81 ± 6.9 % mortality respectively. For the dose 0.75 ml/l were 67.03 ± 5.83 % and 50.56 ± 5.5 % mortality respectively. The mean decrease of egg numbers in leaf in concentration 0.75 ml/l was 98.09 ± 0.48 % in 30 days. The comparison of means showed that there is no significant difference among treatments, but there is a significant difference with the control. According to our results, a dosage of 0.25 ml/l of imidocloprid was recommended in soil application, only at planting time and gets the final results 30 days after application.

Key words: *Bemisia tabaci*, imidacloprid, soil application, greenhouse cucumbers, Iran.