

Study on the efficacy of different control methods of vine cicada, *Psalmocharias alhageos* (Hem., Cicadidae) in Qom province

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Abstract

Vine cicada, *Psalmocharias alhageos* (Hem., Cicadidae), is one of the period important pests of vine trees in Iran. Main damage of *P. alhageos* is caused by long feeding period of nymphs on the vine roots and laying eggs of females under the bark of the shoots. The adults appear from mid May in Qom region. Three insecticides: Diazinon (10% granule), Carbaryl (Sevin[®] 85%) and Imidacloprid (Confidor[®] SC350) by soil application and gardening activities (pruning of top branches and shoveling of soil under vines) were compared. In this study The treatments were compared with the number of nymphal exuviae under vines and grape vine yield. The results showed that the maximum number of nymphal exuviae was recorded on the control treatment (14.2) and the minimum was on trees using the treatment of Imidacloprid (4.9). The highest and lowest of grape yield were recorded in Imidacloprid (54.1 kg) and control (15.7 kg) treatments, respectively. Based on treatments ranking, application of Imidacloprid (20 ml at each vine tree) at nymphs emergence time from soil was effective in decreasing of vine cicada damage and increasing of the grape vine yield.

Key words: grape vine, vine cicada, *Psalmocharias alhageos*, control methods, chemical control, gardening activities, Qom

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