

Botanical Insecticide, Palizin a Good Alternative for Control of Rose Aphid, *Macrosiphum rosae* (Hom., Aphididae) Compared with Chemical Insecticide, Imidacloprid

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Abstract

The aphid, *Macrosiphum rosae* is one of the important pests of *Rosa* spp., feeds by sucking sap from plant which leads to leaves and shoots distortion and reduction of plant growth and crop productivity. In this study, the efficiency of botanical insecticide, palizin[®] was compared with the chemical insecticide, imidacloprid[®] in the laboratory and outdoor condition. The insecticides were evaluated at the maximum recommended field concentration: palizin 2000 ppm, imidacloprid 500 ppm and water was used as control. Spraying was done by a hand sprayer on both sides of *Rose* leaves until the leaves were covered completely by insecticides. The number of dead aphids was recorded at 24, 48 and 72 hours after treatment. To obtain the number of dead aphids, the live adults were counted at different times post treatment. According to the results, statistically significant difference found among treatments ($P \leq 0.05$). The insecticides were noticeably decreased the number of *M. rosae* and caused mortality more than 90% in both conditions. However, there was no statistically significant difference between the mean mortality percentage when imidacloprid and palizin were compared. This shows that botanical insecticide, palizin can effectively control *M. rosae* and can be used instead of chemical insecticide, imidacloprid, in control programs of this pest.

Keywords: Aphid, Botanical Insecticide, Imidacloprid, Palizin, *Rosa*