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Development of some Integrated Pest Management Methods for Red Palm Weevil in Ismailia Governorate

Thesis Submitted By

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<u>Abstract</u>	
<p>The red palm weevil, <i>Rhynchophorus ferrugineus</i> is considered to be the most serious pest of date palms, which is very challenging pest to control so that it called "palm cancer". The more sustainable approach for controlling the RPW in date palms is the integrated pest management including behavioral control by using aggregation pheromone traps as well as using some chemical, bio insecticides and plant extract. Pheromone traps was developed by conducting field experiments to evaluate some used compounds and different trap positions in date palm varieties under study; Zaghlool, Barhi, Hayani and Samani for monitoring, exploring and studying the population fluctuations of RPW during two study years. In addition to determine the most appropriate times of control RPW. Also traps were used to collect and dispose of large numbers of RPW. Results showed that Zaghlool date palm variety was the highest percentage of infestation with RPW comparison with other date palm varieties. Also results showed that population fluctuations of RPW were existed in study area all over the year. In addition to the highest percentage of collected RPW adults was recorded on March, April and May for all date palm varieties during the two study years. The results also proved the importance of using the pheromone traps as an effective method in integrated control programs to reduce and control the spread of RPW. The work was also conducting lab experiments to evaluate the toxic effects of chemical insecticide; Profenomex 44% EC, plant extract; Palmotto 60% EC and bio insecticide; Bio-Magic 1.15% WP against fourth, eighth larval instar and adult stage of RPW. Results revealed that Profenomex 44% EC proved to be the most effective against all tested larval and adult stage comparison with other insecticides. Also results of field injection with tested insecticides against infested date palm were indicated that Profenomex 44% EC was more effective against RPW comparison with other insecticides.</p>	
Key words	Date palm varieties – RPW, <i>Rhynchophorus ferrugineus</i> Aggregation pheromone traps - Population fluctuations Bio insecticides - Plant extracts - Inject palms

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