

**Educational Effects of Integrated Pesticide Control
Program Of Red Date Palm Weevil
in Ismailia Governorate**

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Abstract

The objectives of this study were as follows:

- Determining relatively important degree of date palm respondent farmers information sources about integrated pesticide control program of red date palm weevil.
- Determining respondent farmers knowledge degree about infection signs of the studied weevil.
- Determining respondents knowledge and carrying out degree recommendations of integrated pesticide control program and continuation of carrying them out.
- Determining extension activities introduced by the extension system to the respondent farmers.
- Determining the relationship between the studied independent variables and implementation of total average degree of recommendations for each kind of control in the studied program.
- Determining obstacles facing palm trees respondent farmers in implementing the program.
- Recognizing the suggestions of respondent farmers to increase the effectiveness of the studied program.

This study covered ١٥ villages in five districts of Ismailia governorate. Three hundreds respondents were chosen as a sample from the largest three villages of each district . Data were collected using a prepared questionnaire through personal interview during December ٢٠٠٨, January and February ٢٠٠٩.

Analyses of the data used tables of calculated numbers, percentages, average degree, simple correlation coefficient, chi-square, and contingency coefficient.

The Study Findings were as follows:

- Less than half of the sample was old age (٥٢ years and more), more than two fifths of respondents were ignorant, the majority of respondents owned three tools and more, and more than half of the sample owned less than ١٠٠ palm trees and they were small farmers.
- All respondents got their information with low degree from all sources.
- Respondents knowledge was high to total recommendations of each chemical control and protective control. while it was medium to total mechanical control and signs of infection. But it was low to total recommendations of biological control.
- Continuity degree of respondents recommendations implementation was high concerning chemical control, with average ١,٧ degree, while it was medium to total recommendations of each: protective control with average ١,٦٨ degree, mechanical control with average ١,٥٢ degree. But it was low concerning biological control with average ٠,٣١ degree.

- It was found necessary to increase interest of the extension organization with activities presented to respondent farmers with low degree. These activities are: awaring farmers with sources of getting good young palm trees to plant it, availability of extension bulletins and magazines, awaring farmers to use of the biological enemies in the control process, awaring farmers with sources of getting spraying motors, awaring farmers with sources of pulling and burying infected palm trees, awaring farmers to get the necessary insecticides from agricultural cooperatives, arranging special meetings to get rid of the insect, and arranging visits to extension agent's office.
- There was no relationship between respondents age and the total average degree of implementing recommendations of all controlling kinds in the studied program.
- There was positive significant relationship at ($0,01$) between educational level of respondents and total average degree of implementing recommendations of all controlling kinds in the studied program.
- There was positive significant relationship at ($0,01$) between number of control tools which farmers owned and total average degree of implementing recommendations of all control kinds in the studied program.
- There was positive significant relationship at ($0,01$) between number of palm trees owned by respondents and total average degree of implementing recommendations of each: protective control and biological control while there was no relationship between number of palm trees owned by respondents and total average degree of

implementing recommendations of mechanical and chemical control.

- There were some obstacles which were mentioned by respondents such as: high price of insecticides no regular spraying of unknown palm trees source, insecticides are not always available in the agricultural cooperatives, wages of hiring trained employees are high and rent of machines used in insects control are high. These obstacles hinder farmers from applying the recommendations of the program perfectly. To increase educational effectiveness of the studied program, farmers suggested the following recommendations: availability of insecticides with suitable price, keeping an eye on treatment stages, doing the control process to unknown resources of palm trees regularly.

Five recommendations were deducted from the results.