

Farmers Adoption of Biological Method for White Fly Lesions in Tomatoes at The Center of Al-Hammam in Matrouh Governorate

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Abstract

The aim of the research was to identify the level of adoption by the farmers for the biological control of white fly lesion, to identify the sources of information on the adoption of the biological control of the white fly pest, and to determine the relationship between independent variables and the degree of adoption by the farmers for the biological control of white fly lesion, and to determine the percent of the influence of the changes with mortality relationship to this degree.

This study was conducted in the center of Al Hammam in Matrouh Governorate. A sample of 205 subjects was selected with 10% of the total number of farmers. The data was collected in a questionnaire specifically designed to achieve the research objectives. In the data display, it was used for frequency, percentage, Pearson's simple correlation coefficient, and the correlative, multi-slope and incremental regression model. The results showed that 80.0% of the respondents had a high level of adoption of the biological control of white fly lesion, while 12% of them had average adoption and 8% of the subjects had low adoption level.

The results showed that the degree of adoption by the farmers for the biological control of the white fly lesion was significant at 0.01 with each age variable, tomato planted area, years of tomato cultivation, and the degree of trend towards agricultural innovations. : 0.452, 0.475, 0.382, 0.341 respectively, while the relationship was significant at level 0.05 with variables: the degree of education of the respondent, the area of agricultural tenure, the degree of membership in the local organizations and the degree of exposure to the sources of information. , 0.163, 0.163.

- The percentage of the contribution of these variables in the interpretation of variance to the degree of adoption by the farmers to apply the biological control of white fly lesion in the research area was significant at level 0.01 and that the proportion of their contribution together in the predictive capacity to change is 52.0%, where 31.6% Attributed to the area of agricultural tenure, 5.1% to the area planted with tomatoes, and 2.3% to the degree of education of the respondent.

The study recommends the agricultural guidance program to make guidance programs regarding the biological control to all types of white lesions; so that the farmers' adoption rate for applying biological control to

all types of white lesions would increase. The research's results indicated that the farmers' level of adoption varied from low to average.

Agricultural workers, (representing the Ministry of Agriculture, the Directorate of Agriculture in Matrouh, Agricultural Extension and the Environmental Affairs Agency in the governorate), define the gained benefits to the farmers from applying biological control of white fly lesion; the benefits include an increase the productivity of tomato crops and limiting the use of chemical fertilizers.

It is recommended to hold on orientation seminars and workshops to train farmers on how to implement the methods of biological control. And that the Central Administration for Agricultural Extension issues guidelines in the field of biological control of white fly lesion.