

## Application of Ordered Logit model to determine factors affecting adoption of integrated pest management practices among greenhouse owners in Jiroft County

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### Abstract

Due to the importance of greenhouse products in Jiroft County, this research was carried out to study the factors affecting adoption of Integrated Pest Management (IPM) operations by greenhouse owners, using Ordered Logit model, in 2014. The studied population consisted of 1650 greenhouse owners and the sample size was determined as 160 farmers, based on Cochran formula. Sampling method was proportional stratified method and required data were collected using a questionnaire. Results showed that about 40% of greenhouse owners do not perform any of IPM operations in their greenhouse, which could eventually lead to environmental unsustainability and jeopardize the food security of the community. Based on the results, the variables including family labor, IPM knowledge level, environmental protection index, participating in extension classes, and type of ownership have had positive impact and greenhouse area and cucumber greenhouses have had negative impact on the adoption level of IPM operations. Therefore, it is suggested that training and extension classes in order to increase the level of IPM knowledge, long-term and low-interest payments for construction of greenhouses to increase greenhouse ownership, and providing inputs for sustainable agriculture in order to increase acceptance of IPM operations, with regard to the government support packages, should be executed.

**Keywords:** Safe product, Greenhouse cultivation, Food security, Sustainable agriculture.

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