

Study of constraints faced by cotton growers in adoption of bio-control measures

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ABSTRACT

The study was undertaken of 150 cotton growers from 10 villages of Narkhed Tahsil in Nagpur District of Maharashtra state. The study indicated negatively significant relationship with adoption levels of bio-control measure in respect of age of cotton growers. However, the selected variables viz., education, land holding, annual income, socio-economic status, extension contact, change proneness, economic motivation, scientific orientation and knowledge of cotton growers had significant relationship with adoption of bio-control measures. Major constraints expressed by cotton growers in adoption of bio-control measures were lack of knowledge about bio-agents, non-effective result of *Bacillus thuringiensis*, higher cost of bio-agents and extension workers did not provide detail information.

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Key words : Constraints, Adoption, Bio-control measures, Cotton growers

INTRODUCTION

Plant protection is an essential and vital aspect of successful crop production. In green revolution, chemical pesticides have played an important role in boosting up the production of crops since then, the use of chemical pesticides and insecticides in particular has become popular among Indian farmers for the control of insect pests. At present the insecticides account for 52 per cent of the total consumption of chemical pesticides, herbicides 33 per cent and fungicides 15 per cent (Singhal, 1999). Out of the total chemical insecticides consumption, cotton crop alone accounts for 54 per cent consumption. Indiscriminate use of chemical pesticides led to problems of pest resistance to chemical, risks to human, animal health and environmental pollution. The continued use of chemical insecticides also builds up high level of toxic residues in food, ground water and air. With a view to minimize these problems, the available alternative is biological control of insect and pests. Now a day's farmers are becoming aware about bio-control measures for crop production. But there are certain constraints due to which they are unable to fully adopt it. Hence, present study was undertaken with the objectives, to study the constraints faced by the cotton growers in adoption of bio-control measures and to study the relationship between selected independent variable and dependent variable.

MATERIALS AND METHODS

The study was undertaken in 10 villages of Narkhed Tahsil in Nagpur district of Maharashtra state. From each village farmers were selected by using the nth number method. For this list of cotton growers in each village was obtained from Gramsevak and every 4th farmer was selected as respondent depending on number of farmers in the village thus 150 farmers were selected for the study. Thus the selected respondents were personally interviewed with the help of specially designed interview schedule. The data were subjected to exploratory statistical analysis.

RESULTS AND DISCUSSION

The result presented in Table 1 showed negatively significant relationship with adoption levels of bio-control measure in respect of age. This indicates relatively better adoption about bio-control measure among young cotton growers. Similar findings were reported by Ankulwar *et al.*(2001). The selected variables viz., education, land holding, annual income, socio-economic status, extension contact, change proneness, economic motivation, scientific orientation and knowledge of cotton growers had significant relationship with adoption of bio-control measures.

Data presented in Table 2, revealed that 90.00 per

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