EFFECT OF SOCIO-ECONOMIC ASPECTS OF MANGO GROWERS ON THE ADOPTION OF RECOMMENDED HORTICULTURAL PRACTICES

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Mango is the second major fruit of Pakistan after citrus and ranks second in the world for its production. Its per hectare yields are very low due to non-adoption of recommended horticultural practices by mango growers, who in turn are influenced by a number of factors including socio-economic ones in order to monitor the relationship of socio-economic aspects on the adoption of some of the related recommended practices. The present study was conducted in Muzaffargarh district. The data were collected from 150 respondents. There is a non-significant relationship of type of tenure either with adoption of recommended pit farming or destruction of the diseased plants/plant parts by them.

Key words: adoption, mango, socio-economic aspects

INTRODUCTION

Mango *(Mengifera indica* L.) is not only the second major fruit crop of Pakistan after citrus, but it also ranks second in the world for its production (FAO, 1999). It is the most favourite fruit of our people for its pleasant flavour and taste and multiple use. Its per capita consumption in Pakistan is 6.7 kg (Tasneem 1989). The mango has won the title of "king of fruits" owing to its excellent flavour and delicious taste. Besides being a rich source of vitamins A and C, it also contains formidable amount of proteins, sugars, organic acids. carbohydrates and minerals, etc. This country is lucky enough to be endowed with wide range of agro-climatic conditions, which permit the production of varieties of both tropical and temperate fruits. The most suitable soil and climatic conditions for mango cultivation prevail in most of the plain areas of Sindh and Punjab provinces. During the year 1997-98. the total area under mango cultivation was 90.7 thousand hectares with an annual production of 898.1 thousand tonnes. the average yield being 9.90 tonnes/hectare (Anonymous. 1997-98).

District Muzaffargarh occupies an important position for growing world's best mango varieties. Although the yield is very low as compared to other countries e.g. the average per hectare yield (million tons) in India is 12000, China 2142, Sri Lanka 1350, and Pakistan 914. The main reasons attributed to low yields are selection of land for initial planting. selection of suitable varieties. improper doses of fertilizers, lack of insect-pests control such as mango leaf hopper. mealybug, fluffy mealybug, scale insects etc. and diseases like mango malformation, quick decline, anthracnose and powdery mildew, etc. Apart from many other factors, the socio-economic and personal characteristics of the respondents such as age, education, size of land holding and type of tenure play a pivotal role in the adoption of innovations or recommendations as reported by Rashid (1980). It was found that the rate of adoption of the recommendations improved over five year period from 7.9 to 77.88% on average farms and from 27.71 to 100% on leading farms. The present study was undertaken to identify the extent to which the mango growers were aware of and had adopted the recommended plant protection measures as well as to explore the non-adoption constraints.

MATERIALS AND METHODS

The study is based on descriptive survey methodology. Tehsil Muaffargarh of Muzaffargarh district served as the universe for the study. Tehsil Muzaffargarh consists of 36 union councils but the study was restricted to 10 union councils, of which 15 mango growers commanding mango orchards of at least ½ hectare and above were drawn at random from each selected union council adding to 150 respondents. The data were collected with the help of a pre-tested interview schedule and chi-square test was applied to find out relationship between age, size of land holding, type of tenure and the adoption of recommended practices.

RESULTS AND DISCUSSION

The data (Table 1) showed that there was a significant relationship between age of the respondents and adoption of the recommendations regarding pit farming for mango plantation. These above results coincide with the findings of Anwar (1988) who found that there was a positive relationship between age and adoption of improved citrus varieties and nursery transplanting season i.e. spring and monsoon. At the same time there was a non-significant relationship between age and destruction of the diseased plants/plant parts. It means that the adoption of this practice was unlikely to be influenced by respondents' age. These findings are similar to those obtained by Ahmed (1988) who reported that there was a non-significant relationship between age level of the respondents and adoption of recommended number of hoeings of maize crop. The data given in Table 2 indicated a highly significant relationship between education of the respondents and adoption of the recommendations regarding pit formation for mango plantation. But non-significant association existed between education of the respondents and the destruction of diseased plants/plant parts by them. The data further revealed a highly significant association between the size of land holding and adoption of recommended pit farming by the mango growers. Present findings are in agreement with those of Hassan

(1989) who found that the size of land holding was non-significantly associated with the adoption of recommended citrus growing practices. It was also found that there was a non-significant relationship between the size of land holding and destruction of diseased plants/plant parts by the respondents. The data revealed a non-significant relationship between type of tenure and the adoption of the recommended pit farming. whereas there existed a non-significant association between the type of tenure of the respondents and destruction of the diseased plants/plant parts by them.

Table 1. Relationship between age and adoption of the practice of destroying the diseased plants/plant parts of mango

Age group	Adopter (No.)	Non-Adopter (No.)	Total
Young (up to 30 years)	26	I	27
Middle aged (up to 50 years)	73	3	76
Old (above 50 years)	45	2	47
Total	144	6	ISO

Table 2. Relationship between education and adoption of the practice of destroying the diseased plants/ plant parts of mauzo

Educational level	Adopter (No.)·	Non-Adopter (No.)	Total
Illiterate	59	I	60
Up to Primary	19	0	19
Up to Matric	34	2	26
Above Matric	32	6	35
Total	144	6	ISO

REFERENCES

Ahmad, A. 1988. A study into the adoption of recommended maize growing practices by the farmers of Faisalabad Tehsil.. M.Sc. Thesis, University of Agriculture', Faisalabad.

Anwar, M. 988. A study into the extent of adoption of improved gardening practices by the citrus growers of Tehsil Phalia, District Gujrat.. M.Sc. Thesis. University of Agriculture, Faisalabad.

Anonymous. 1999. Agri. Statistics of Pakistan. Ministry of Food, Agriculture and Livestock (Economic Wing), Govt. of Pakistan, Islamabad.

FAO 1999. Production Year Book. Rome, Italy.

Hassan, Z.U. 1989. The adoption of recommended horticultural practices with special reference to citrus fruit by the farmers of Tehsil Sargodha. M.Sc. Thesis, University of Agriculture, Faisalabad.

Rashid, M. 1980. Some personal and economic factors associated with adoption of recommended agricultural practices in rural Egypt.. World Agri. Eco. Rural Soc. Abstr. 19 800, 1980.

Tasneem, M. 1989. Financial support and services by banking sector to mango industry. Proc. Int. Mango Workshop. Directorate of Agriculture (Ext.) Multan Region, Punjab, Pakistan.