Effect of Education of the Respondents on the Adoption of Recommended Chemical Control Measures Among the Rice of Thesile Kamoke, District Gujran Wala–Pakistan

MUHAMMAD ZAKARIA YOUSUF HASSAN, AHMAD SAEED KHAN AND NIAZ HUSSAIN MALIK
Division of Education and Extension, University of Agriculture, Faisalabad–38040, Pakistan

ABSTRACT

Rice is one of the staple foods for nearly half of the people of the world. It is the major export commodity and plays and important role in earning foreign exchange for Pakistan. Pakistan stands 9th in world ran king in rice production mainly due to factors like shortage of irrigation water, salinity and alkalinity in the rice growing areas, primitive method of cultivation, high incidence of pests and diseases etc. in order to enhance the per acre rice productivity and to cope with the problem, education of the farmers is the best tool. The relationship between education and chemical control measures needed to be worked out to see the impact of education. For this purpose tehsil Kamoke comprising 15 union councils was taken as universe. Out of these, 5 union councils were selected randomly. Then from each selected union councils, two villages drawn at random and from each sample village 15 respondents were taken out by simple random technique form those who had grown at least two hectares of rice crop, thus making the total of 150 respondents. Chi-square test was used to interpret the relationship. It was concluded that there existed significant relationship between education and adoption of some chemical control measures.

Key Words: Adoption; Education; Relationship; Rice

INTRODUCTION

Rice (*Oryza sativa* L.) is one of the most important staple foods for nearly half of the people of the world and plays an important role in the economy of Pakistan. Besides being at number two staple food of country's population, it is the major export commodity and plays a significant role in the earning of the foreign exchange. Rice is not only used in course form but also it's by products are utilized in many areas such as straw is used as fodder, packing material and manufacturing cardboard. Its flour is used in confectionary and bakery products. Due to heavy water requirements, the extra salts in the soil percolate in the lower layer of soil, which helps in the reclamation of soil from salinity.

Pakistan stands 9th in the world ranking with 2312 thousand hectares and a production of 1000 metric tones having a 3074 kg/ha of average yield in the year 2000. On the other hand, Egypt stands first in with average yield of 9086 kg/ha, which shows a very wide difference between averages yields of both the countries and thus providing many opportunities too fill the gap (FAO, 2000).

The major factors being responsible for low yield may be the shortage of the water, salinity and alkalinity in the rice growing areas, more area under low yielding verities, primitive methods of cultivation, less fertilizers, high incidence of pests and diseases and decline in the soil fertility of rice growing areas. Out of these factors high incidence of pests/insects, diseases and rodents are causing heavy loss to this crop. In rice fields four rodents species had damaged rice crop up to 10% in Sindh and Punjab provinces as reported by Khan (1986). This all may be due to lack of knowledge and illiteracy on the part of farmers.

Education mot only improves the mental alertness of an individual but is also responsible for the positive change in the behavior of an individual in all aspects of life. If farmers are well educated formally or non-formally, they are able to handle their crop management and production, which leads to increase in over all production of various crops at national level. The main responsibility to educate farmers in crop production is laid on shoulders of agriculture extension. Agriculture extension service is entrusted to get the latest agriculture recommendations diffused among the farming community and thus acts as the bridge between the farm and the research stations. Supe (1987) viewed that the extension helped in the diffusion of innovations. These innovations are of no use unless they are put to practical. It is through extension that new findings could reach the people speedily.

Keeping in vies the above said facts; the present study was conducted to get said facts; and figures about the effect of education on the adoption of recommended chemical control measures among the rice growers of tehsil Kamoke of district Gujranwala as a major rice growing tract of Punjab province.

MATERIALS AND METHODS

Tehsil Kamoke comprising 15 union councils was taken as universe. Out of these, 5 union councils were selected randomly. Then from each selected union councils, two villages drawn at random and from each sample village

Table I. Relationship between education and adoption of Padan by the respondents

Educational level	Adopters	Non-adopters	Total
Illiterate	80	15	95
Up to primary	16	04	20
Up to matric	17	07	24
Above matric	10	01	11
Total	123	27	15

d.f = 3; χ^2_{cal}= 2.50; χ^2_{tab}= 7.81; Non-Significant

Table II. Relationship between education and adoption of Malathion by the respondents

Educational level	Adopters	Non-adopters	Total
Illiterate	12	83	95
Up to primary	10	10	20
Up to matric	22	02	24
Above matric	07	04	11
Total	51	99	150

d.f = 3; χ^2_{cal}= 61.67; χ^2_{tab}= 7.81; Highly Significant

Table III. Relationship between education and adoption of Padan by the respondents

Educational level	Adopters	Non-adopters	Total
Illiterate	10	85	95
Up to primary	14	06	20
Up to matric	10	14	24
Above matric	08	03	11
Total	42	108	150

d.f = 3; χ^2_{cal}= 44.98; χ^2_{tab}= 7.81; Highly Significant

15 respondents were taken out by simple random technique form those who had grown at least two hectares of rice crop. In this manner the total number of respondents selected for this study stood 150. The data so collected were analyzed and interpreted for drawing conclusion. The Chi-square test was used to interpret the relationship between attributes.

RESULTS AND DISCUSSION

Table I shows that there was non-significant relationship between education and adoption of recommended doses of Padan by the respondents. The same results was found by Salem (1980) and Javed (2000) who concluded that education had no significant effect on the adoption of recommended wheat varieties and seed treatment in case of sugarcane crops, respectively.

The Table II depicts that there was highly significant relationship between education and adoption of Malathion by the respondents. The same results were elaborated by Hussain (1991) who concluded that a statistically significant relationship between education and adoption of recommended seed rate and fertilizer dose was observed.

The effect of education on the adoption of Detia (tablets) by the respondents was found highly significant in Table III. The same was observed by Hussain (1994) while studying the sugarcane crop.

REFERENCES

FAO, 2000. *Year Production Book.* Rome, Italy.

Hussain, A., 1991. An investigation into the adoption of improved gram production practices by the farmers of Noorpur Thal, tehsil of district Khushab. *M.Sc. (Hons.) Thesis,* Univ. Agric., Faisalabad, Pakistan

Hussain, N., 1994. A study into the adoption of sugarcane cultivation practices by the farmers of tehsil Kamalia, district Toba Tek Singh. *M.Sc. (Hons.) Thesis,* Univ. Agric., Faisalabad, Pakistan

Javed, C.M.A., 2000. An investigation into the adoption of agricultural technology with special reference to sugarcane crop among the cane growers of Noon Sugar Mills zone area Bhalwal, district Sargodha. *M.Sc. (Hons.) Thesis,* Univ. Agric., Faisalabad, Pakistan

Khan, A.Z., 1986. Appraisal of the impact of extension activities undertaken by Hussain Sugar Mills Jaranwala to increase sugar production. *M.Sc. (Hons.) Thesis,* Univ. Agric., Faisalabad, Pakistan

Saleem, M., 1980. A study to determine the factors responsible for adoption of new wheat verities in Jaranwala tehsil, district Faisalabad. *M.Sc. (Hons.) Thesis,* Univ. Agric., Faisalabad, Pakistan

Supe, S.V., 1987. *An Introduction to Extension Education.* Oxford and IBH Publishing Co. (Pvt.) Ltd., New Delhi, India