Indian Journal of Extension Education
Vol. 49, No. 1 & 2, 2013 (110-111)

Adoption Behaviour of Pigeonpea Growers in Allahabad District of Uttar Pradesh

J. P. Srivsatava[1], Dipak Kumar Bose[2] and Jitendra Singh[3]

ABSTRACT

Pigeonpea is most important pulse crop enterprise in U.P. Efforts are being made by extension functionaries to boost-up the production and productivity of the pigeon pea, even though, there exists the gap between the yield obtained at research farm and farmers' field, it might be due to adoption gap. Keeping this in view an investigation was carried out in Karchhana block of Allahabad district during 2011-12 in order to determine the level of adoption of improved practices of pigeon pea production technology. The study inferred that majority of the respondents had medium level of adoption followed by high and low level of adoption. The variables like age, education, extension contact and mass media exposure were found to be positively and significantly corelated with the adoption behavior of the pigeon growers. There is a considerable scope for enhancing the production of the pigeon pea subject to the need based training imparted to the growers so that they could reap the benefits by adopting the improved package of practices.

Key words: Adoption behaviour, pigeon pea growers, improved practices.

INTRODUCTION

Pigeonpea is the second largest pulse crop in India accounting 20 per cent of total pulse production. This crop is one of the most important pulse crops in U.P covering 0.38 million hectares area with the annual production of 0.37 million tonnes. Its cultivation is pre-dominantly done in Allahabad district mostly under rainfed condition. The irrigated area is negligible in this zone. Various research organizations and Agricultural Universities have recommended a number of improved scientific practices for pigeonpea, however, the rate of adoption of improved practices at the farmers' level is considerably low. Higher pulse production can be attained only by maximizing the production and productivity per unit area, which in turn is possible only by wide scale adoption of improved recommended practices by the growers. Though the extension functionaries have concentrated their efforts towards dissemination of generated technology to at farmers' fields, still there is a wide gap between the achievable yields and achieved yields. The yield of the pigeon pea in the zone is as low as 7.5 quintals per hectare. The adoption of technology varies from farmer to farmer depending upon the socio-economic characteristics of an individual. In view of the facts stated, the present study was undertaken in Allahabad district of Uttar Pradesh with the following specific objectives:

1. To determine the level of adoption of improved practices in pigeon pea cultivation.

2. To find out the relationship between socio-economic characteristics of pigeon pea growers with the adoption level.

METHODOLOGY

The Allahabad district of U.P was purposively selected for conducting the present study as it is well known area for pigeonpea cultivation. Further, five villages were selected randomly from purposively selected block Karchhana. In all, 125 pigeonpea growers were selected randomly for the study. To measure the adoption level of the pigeon pea growers, fifteen recommended practices viz. recommended HYVs, seed rate, seed treatment, time and methods of showing, FYM application, fertilizer application management, weedicide, and plant pest control measures etc. were considered. The weightages of 3 for full adoption, 2 for partial adoption and 1 for non adoption of each recommended practice were assigned. The total score obtained by the respondent from all the practices was the adoption score of an individual respondent. Thereafter, adoption index was calculated by using the following formula:

$$\text{Adoption Index} = \frac{\text{Total score obtained}}{\text{Total possible score}} \times 100$$

The respondents were categorized based on index into three categories *viz.* low (22-41), medium (42-60) and high (above 60). Correlation coefficient was used to find out the relationship between independent and dependent variables.

[1] Professor Emeritus, [2]Associate Professor and [3]Ex M.Sc. Student, Department of Extension and Communication, SHIATS-Deemed University, Allahabad, U.P-211 007, India.

RESULTS AND DISCUSSION

It was observed that half (50.4%) of the respondents had medium adoption level, while 25 per cent of the respondents possessed high level of adoption followed by 24.00 per cent respondents in low level of adoption of improved recommended practices (Table 1). It was inferred that there is considerable scope for enhancing adoption of improved practices. These findings are contrary to the findings of Vijay A.N.A. *et. al.,* (2012). It may be due to the fact that the study area has favourable conditions for pigeon pea cultivation.

Table 1 : Distribution of respondents by their adoption level.

n=125

Adoption level (Index Value)	Frequency	Percentage
Low (22-41)	30	24.00
Medium (42-60)	63	50.40
High (above 60)	32	25.60
Total	125	100.00

It is evident from the Table 2 that age and education of the respondents were found to be positive and significantly related with the adoption of pigeon pea production technology. However, occupation was negatively correlated. Aged and educated respondents adopted improved practices to a greater extent; the reason may be that aged and educated farmers are producing pigeon pea because it is remunerative enterprise. The occupation of the respondents was found to be negative but significantly correlated with the adoption behavior of the respondents. Deviation of interest to other subsidiary occupations might be the reason behind it.

Table 2: Correlates of adoption behaviour of respondents.

Characteristics	'r' value
Socio-economic	
Age	0.341**
Education	0.238*
Occupation	-0.287**
Landholding	0.162
Social participation	0.006
Socio-economic status	0.081
Communication	
Extension personnel contact	0.242*
Participation in extension programme	0.076
Mass media exposure	0.276**

- Significant at 0.05 level** Significant at 0.01 level

Variables like land holding, social participation, socio- economic status and participation in extension programme did not show any significant relationship with adoption behavior of pigeon pea growers. Among the set of communication variables, mass media exposure and extension personnel contact were found to be positively and significantly correlated with adoption behaviour. The contacts with extension personnel who are engaged in agricultural development help an individual to overcome the problems and constraints and guide him to achieve the desired goal. The involvement of an individual in mass media programmes has shown a significant relationship. This may be owing to the fact that through radio and TV, the agricultural messages can go rapidly and timely to far off and remote places.

CONCLUSION

It was concluded that there is scope for increasing adoption of improved package of practices subject to the mitigation of constrains coming on the way. It may also be possible by incorporating more extension programmes through mass media and involving village panchayat.

REFERENCES

Bose S.P. 1965 Socio-Cultural Factors in Farm Efficiency, *Indian Journal of Extension Education.* Vol.1, No. 3.

Reddy AA. 2005 Utilization Pattern of Pulses, paper presented at International Food Legumes Research conference-IV, *Indian Agricultural Research Institute*, New Delhi, 18-22

Reddy AA. 2006 Impact Assessment of Pulses Production Technology, Research Report No. 3, *Indian Institute of Pulses research*, Kanpur.

Srivastava, S.K., Sivaramane, N. & Mathur, V.C 2010 Diagnosis of pulses performance of India, Agricultural economics Research review, vol. 23 Jan-June 2010 : 137-148

Sisodia BVS and Sharma MK. 2011 Growth pattern and technological impact on pulse production in Uttar Pradesh. Book chapter of "Evaluation and Impact assessment of Technologies and Development activities in agriculture, fisheries and allied field : 111-134.

Vijay A.N.A. and Singh G. 2012 Adoption of improved practices of pigeon pea, Journal of Food Legumes 26 (1 & 2)