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CORRELATES OF ADOPTION OF GROUNDNUT PRODUCTION TECHNOLOGY BY THE FARMERS

Subhash Chand* and K.C.Meena**

ABSTRACT

The groundnut (*Arachis hypogaea*) is the most popular oilseed crop in India. Out of a total area of 86.72 lakh hectare under groundnut in India, Rajasthan covers 2.46 lakh hectares with production of 2.96 lakh tones. The study was conducted in eight village of Sambhar lake block of Jaipur district of Rajasthan. The finding revealed that majority of the respondents (57.00 per cent) fell under medium adoption category followed by low (28.00 per cent) and high (15.00 per cent) level adoption of groundnut production technology. The study shows that the selected independent variable viz.; education, social participation, socio-economic status, sources of information utilization and level of knowledge were positively and significantly associated with adoption of recommended groundnut production technology. Further, it is also revealed that 't' test of significance expresses that coefficient of regression (b-value) were positively significant for all the independent variables.

INTRODUCTION

Indian occupies the first position, both with regard to area and productivity of groundnut in the world. The oil content of the seed varies from 44 to 55 percent, depending upon the varieties and agronomic condition. Its oil finds extensive use as vanaspati ghee. It is also used in manufacturing soap, cosmetic and lubricants. Kernels are also eaten raw, roasted or sweetened which is rich in protein and vitamins A and B. Being a legume with root modules, it is capable of fixing atmospheric nitrogen, thereby improving soil fertility. The groundnut is the most popular oilseed crop in India. Out of a total area of 86.72 lakh hectare under groundnut in India, Rajasthan covers 2.46 lakh hectares with production of 2.96 lakh tonnes. In Rajasthan, this crop is grown over 38.95 percent of the area under irrigation in Bikaner, Ganganager and Jaipur district where the productivity of this crop is high. The productivity of this crop in Rajasthan is 1223kg/ha which is low as compared to national level. The Rajasthan state has 7th rank in groundnut production. It may be due to the low adoption of recommended production technology. Keeping this in mind, the present investigation was conducted with the specific objective to find correlates of Adoption of Groundnut Production Technology .

RESEARCH METHODOLOGY

The study was carried out in Jaipur district of Rajasthan, because it occupies second highest area as well as production in the state. The eight village of Sambhar Lake block of Jaipur district were selected on the basis of highest groundnut production. A total 100 farmers were selected from selected villages by proportionate random sampling. The data were collected with pre-tested interview schedule. The statistical tests i.e.; percentage, rank, correlation coefficient and regression coefficient were used for analysis of the data.

RESULTS AND DISCUSSION

Extent of adoption of groundnut production technology by the farmers

The data in the table 1 depicts the adoption of recommended groundnut production technology by the farmers. Table 1 shows that the highest extent of adoption was found about seed rate (85.00 per cent), hence it ranked 1st. It was followed by spacing (83.00 per cent), depth of sowing (82.00 per cent), irrigation management (61.00 per cent), seed treatment (53.00 per cent) and weed management (51.00 per cent) and ranked 2nd, 3rd, 4th, 5th and 6th, respectively. The least adoption of groundnut production technology by the farmers was found

* Executive (Agriculture), The Bank of Rajasthan Ltd., Anta (Baran).

** Subject Matter Specialist (Extension Education), KVK, Anta (Baran).

about plant protection measure (34.00 per cent), fertilizer management (35.00 per cent), and high yielding variety (28.00 per cent), hence ranked 7th, 8th and 9th respectively.

As far the adoption practices regarding of groundnut production technologies were concerned, table 2 shows that majority of the respondents (57.00 per cent) fell under medium adoption category followed by low (28.00 per cent) and high (15.00 per cent) level adoption of groundnut production technology.

Table 1. Extent of adoption of groundnut production technology by the farmers

S. No	Recommended practices	Extent of adoption (Per cent)	Rank
1	Use of high yielding variety	28.00	IX
2	Seed rate	85.00	I
3	Seed treatment	53.00	V
4	Spacing	83.00	II
5	Depth of sowing	82.00	III
6	Fertilizer management	35.00	VII
7	Irrigation management	61.00	IV
8	Weed management	51.00	VI
9	Plant protection measures	34.00	VIII

Table 2. Categorization of respondents based on their extent of adoption

Adoption categories	Per cent
Low adopters	28.00
Medium adopters	57.00
High adopters	15.00

Correlates of adoption of groundnut production technology by the farmers

Table 3 reveals that the selected independent variable viz.; education, social participation, socio-economic status, sources of information utilization and level of knowledge were positively and significantly associated with adoption of recommended groundnut production technology.

Table 4 depicts that all the five independent variables would account for a high significant amount of variation in the adoption of recommended groundnut production technology by the farmers. This table also shows that 't' test of significance expresses that coefficient of regression (b-value) were positively significant for all the independent variables viz.; education (X1), social participation (X2), socio-economic status (X3), sources of information utilization (X4), and level of knowledge (X5). This might be due the fact that education gives shape and direction to the thinking of individual. Social participation is one of the factors which inspire the farmers for adoption of innovations. The socio-economic status of an individual farmer exerted a significance of his adoption behavior about innovation and it seemed to be quite logical that knowledge about new technology is a pre-requisite for adoption.

Table 3. Relationship between independent variables and the extent of adoption of groundnut production technology by the farmers

S. No.	Independent variables	Coefficient of correlation
1	Education	0.665**
2	Social participation	0.304**
3	Socio-economic status	0.552**
4	Sources of information utilization	0.690**
5	Level of knowledge	0.717**

** Significant at 0.01 level of significance

Table 4. Multiple regression analysis of independent variables

S. No.	Independent variables	b-value (Regression of coefficient)	Standard Error of b-value	't' value
1	Education	0.475	0.161	2.945**
2	Social participation	2.229	0.807	2.763**
3	Socio-economic status	1.162	0.411	2.828**
4	Sources of information utilization	1.370	0.319	4.302**
5	Level of knowledge	1.145	0.186	6.164**

** Significant at 0.01 level of significance

CONCLUSION

The study was conducted in eight village of Sambhar lake block of Jaipur district of Rajasthan. The finding revealed that majority of the respondents (57.00 per cent) fell under medium adoption category followed by low (28.00 per cent) and high (15.00 per cent) level adoption of groundnut production technology. The study shows that the selected independent variable viz.; education, social participation, socio-economic status, sources of information utilization and level of knowledge were positively and significantly associated with adoption of recommended groundnut production technology. Further it is also revealed that 't' test of significance expresses the coefficient of regression (b-value) were positively significant for all the independent variables.

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