SHORT COMMUNICATION

ANALYSIS OF FACTORS ASSOCIATED WITH THE PRODUCTIVITY OF SCENTED RICE VARIETIES AMONGST THE TRIBAL FARMERS OF JASHPUR DISTRICT (CHHATTISGARH)

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Abstract: The present study was conducted in Jashpur district (Chhattisgarh) among scented rice growing tribal farmers. Total 4 blocks were purposively selected for the study and three villages were selected randomly from each selected block. Twelve scented rice growing tribal farmers were selected randomly from each selected village. Thus the total 144 scented rice growing farmers (12X12=144) were considered as respondent for this study. The results of the study revealed that the productivity of scented rice varieties of respondents was found to be positively and high significantly related with the three variables viz. extension participation, source of information and contact with extension personnel at 0.01 per cent level of probability.

Keywords: Scented rice, productivity, adoption, factors

INTRODUCTION

Rice is one of the important cereal crops of the world and forms the staple food for more than 50 per cent of population and is known as "king of cereals". It provides staple diet to 2.7 billion people in different parts of the world. It is grown in the entire world, except Antarctica. It is occupying 150 million ha of area, producing 573 million tones rice with an average productivity of 3.83 tones ha. (Singh *et al.,* 2013). The United Nations General assembly, in a resolution declared the year of 2004 as the "International Year of Rice", which has tremendous significance to food security. It very eloquently upheld the need to heighten awareness about the role of rice in alleviating poverty and malnutrition (Manjunath, 2010).

Indian subcontinent is well known for its native wealth of aromatic rice, of which basmati rice are inexplicably exclusive. Many other traditional rice varieties are also grown in some specific pockets of the country. Scented rice occupies an important status in domestic as well as in International market due to its several outstanding qualities and therefore they earn premium price. These indigenous tall varieties possess some special characteristics, like grains of some varieties are very small, some are fine and some of them have peculiar fragrance and colour. In addition to long grain Basmati type that has high export potential, there are large number of indigenous short-grained aromatic varieties cultivated in Chhattisgarh and different pockets of other states.

RESEARCH METHODOLOGY

The study was conducted during the year 2013-14 in the Jashpur district of the Chhattisgarh state. Out of total 8 blocks namely; Jashpur, Bagicha, Pathalgaon, Pharsabahar, Kansabel, Kunkuri, Duldula and Manora; 4 blocks (50% blocks) Pharsabahar, Jashpur, Duldula and Bagicha blocks were selected purposively. Thereafter, 12 tribal villages namely, Garighat, Bhagora, Sikirma, Galonda, Lodam, Rengola, Bamhani, Patratoli, Sirimkela, Jujgu, Jurgum and Kurdeg were selected for this study on the basis of maximum area under scented rice varieties. In this way the 12 villages were selected for the study. From each village, 12 scented rice growers were selected randomly for collection of data. In this way (12 X 12 = 144) a total of 144 scented rice growing farmers were selected for the study. The data were collected personally through pre-tested interview schedule. Collected data were tabulated and processed by using appropriate statistical tools and methods.

RESULT AND DISCUSSION

Correlation analysis of independent variables with the productivity of scented rice varieties

Correlation coefficient between the selected characteristics of the respondents with productivity of scented rice varieties among scented rice growing farmers was worked out and the values of correlation coefficient are presented in Table 1.

It was found from the data that out of all selected fifteen characteristics, the three variables viz. extension participation, source of information and contact with extension personnel were found to be positive and high significantly correlated with productivity at 0.01 per cent level of probability. Whereas, the variables credit acquisition was found to be positively and significantly correlated with the productivity of scented rice at 0.05 per cent level of probability. It shows that the productivity of scented rice varieties increase by the increasing of participation, source of information and contact with extension personnel and credit acquisition.

The other eleven variables *viz.* age, education, family size, social participation, occupation, land holding, annual income, economic motivation, scientific

orientation, risk orientation and cultivation practices has no statistically significant correlation with productivity of scented rice varieties. So it is required to intervene the significant factors for enhancing the productivity of scented rice varieties.

Table 1: Coefficient of correlation of independent variables with the productivity of scented rice varieties

S. No.	Independent Variables	Coefficient of correlation "r" value
1	Age	0.032 NS
2	Education	-0.027 NS
3	Family size	0.019 NS
4	Social participation	0.116 NS
5	Extension participation	0.412**
6	Occupation	-0.052 NS
7	Land holding	0.036 NS
8	Annual income	0.035 NS
9	Credit acquisition	0.177*
10	Source of information	0.364**
11	Contact with extension personnel	0.402**
12	Economic motivation	0.034 NS
13	Scientific orientation	-0.090 NS
14	Risk orientation	-0.089 NS
15	Sowing method	-0.111 NS

*Significant at 0.05 level of probability ("r" value = 0.162)
** Significant at 0.01 level of probability ("r" value = 0.212)
NS = Non-Significant

It can be concluded that the highly positive significant correlation coefficient was found to be in extension participation (r = 0.412), in source of information (r = 0.364) and in contact with extension personnel (r = 0.402) respectively as compared to other variables.

Multiple regression analysis of independent variables with the productivity of scented rice varieties

The results of multiple regression analysis are presented in Table 2. The results of multiple regression analysis reveals that, out of 15 independent variables, three variables extension participation, land holding and scientific orientation contributed significantly towards productivity at 0.05 per cent level of probability.

The variables age, education, family size, social participation, occupation, land holding, annual income, credit acquisition, source of information, contact with extension personnel, economic motivation, risk orientation and cultivation practices had no significant contribution in productivity of scented rice varieties.

Table 2: Multiple regression analysis of independent variables with the productivity of scented rice varieties

S. No.	Independent variables	"t" value	Regression coefficient "b" value
1	Age	1.67946	0.06679
2	Education	-0.31743	-0.08746
3	Family size	-0.74836	-0.48420
4	Social participation	1.03043	0.46021
5	Extension participation	2.15034	0.81583*
6	Occupation	0.20087	0.09253
7	Land holding	-2.01382	-0.43144*
8	Annual income	0.13516	0.00000
9	Credit acquisition	0.19500	0.14097
10	Source of information	0.19422	0.02883
11	Contact with extension personnel	1.41878	0.41168
12	Economic motivation	0.09642	0.02221
13	Scientific orientation	-2.01132	-0.27855*
14	Risk orientation	-0.85164	-0.14217
15	Sowing method	-0.56129	-0.40477

** Significant at 0.01 level of probability ('t' value = 2.610) R^2 = 0.295
*Significant at 0.05 level of probability ('t' value =1.97) F value of r = 3.56
NS = Non-significant

CONCLUSION

From the study, according to the correlation analysis, it was found from the data that out of all selected characteristics, the three variables viz. extension participation, source of information and contact with extension personnel were found to be positive and high significantly correlated with productivity of scented rice varieties at 0.01 per cent level of probability. While multiple regression analysis reveals that, out of 15 independent variables, three variables namely extension participation, land holding and scientific orientation contributed significantly towards productivity at 0.05 per cent level of probability.

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