

RESEARCH NOTE

## **Role of Selected Characteristics of Paddy Growers on Knowledge, Adoption and Production**

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### **INTRODUCTION**

It is a well known fact that the hard core of poverty is found in rural areas. The poorest section belongs to families of land less labourers, small and marginal farmers, schedule caste and schedule tribes. India has the larger concentration of tribal in the world, except Africa. Gujarat ranks fifth after Madhya Pradesh, Orissa, Bihar and Maharashtra. In Gujarat, it is mainly concentrated in eastern parts of the state from Dang to Surat district in south, Banakantha district in north. Their economy is mainly based on agriculture and partially forest base produce.

Rice is the age old crop of surat district. After implementation of Ukai-kakrapar project and establishment of Main Irrigation Research Station, Regional Rice Research station for drilled and transplanted paddy, the rice production per hectare of this area is higher than of those of all over India. Looking to the importance and existing situation in this area, the present study entitled, "Relationship between selected characteristics of tribal and non-tribal rice growers and their knowledge level, extent of adoption and yield performance regarding the improved rice production technology was undertaken in surat District.

### **METHODOLOGY**

Stratified multistage random sampling

with proportional allocation was followed to select the rice growers for this study. In all 100 tribal rice growers were selected for the study who were in proportion to the rice growers from ten villages of Bardoli and Vyara talukas. Likewise, 100 non-tribal rice growers from the same villages were selected randomly keeping the family size and type constant as that of tribal rice growers.

The data were collected with the help of personal interview schedule which was specially constructed in accordance with the objectives. To identify the relationship between selected characteristics of rice growers and their knowledge level, extent of adoption and yield performance, correlation coefficient was used.

### **RESULTS AND DISCUSSION**

In order to know such relationship the data in this regards were collected and presented in Table 1.

#### **Relationship between selected characteristics of tribal rice growers and their knowledge level :**

A close examination of Table I reveals that among all characteristics, education (0.63141\*\*, 0.39820\*\*), social participation (0.25895\*\*, 0.33760\*\*), scientific orientation (0.25491\*\*, 0.33590\*\*), risk preference (0.25529\*\*, 0.26380\*\*), use of formal sources

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**Table 1 : Relationship between selected characteristics of tribal and non-tribal rice growers and their knowledge level, extent of adoption and yield performance regarding the improved rice production technology.**

Sr. No.	Characteristics	Knowledge level		Extent of Adoption		Yield performance	
		Tribal	Non-Tribal	Tribal	Non-Tribal	Tribal	Non-Tribal
1.	Age	-0.12710	-0.19996 *	0.05529	0.01820	0.11669	0.16431
2.	Education	0.63141 **	0.39820 **	0.38714 **	0.38048 **	0.25757 **	0.19674 *
3.	Social participation	0.25895 **	0.33760 **	0.17260	0.03552	0.09553	0.00018
4.	Size of landholding	0.12744	0.02587	0.44028 **	0.00876	0.10328	0.02998
5.	Occupation	-0.19084	-0.15566	0.22434 *	0.12284	-0.34781 **	0.01991
6.	Annual income	0.00490	0.09070	0.31691 **	0.18306	0.21144 **	0.06448
7.	Economic motivation	0.18623	0.14421	0.76571 **	0.45294 **	0.92731 **	0.52221 **
8.	Scientific orientation	0.25491 **	0.33590 **	0.56060 **	0.42684 **	0.67276 **	0.50594 **
9.	Risk preference	0.25529 **	0.26380 **	0.73247 **	0.41247 **	0.89089 **	0.53258 **
10.	Informal sources	0.03700	-0.08350	-0.05887	-0.02302	0.07780	0.01591
11.	Formal sources	0.32937 **	0.27355 **	0.27890 **	0.24950 *	0.14413	0.19858 *
12.	Mass media Participation	0.38820 **	0.55733 **	0.37596 **	-0.19693 *	0.35439 **	0.38276 **

\* Significant at 0.05 per cent level.

\*\* Significant at 0.01 per cent level.

## Role of Selected Characteristics...

(0.32937, 0.27355\*\*) and mass media participation (0.38820\*\*, 0.55733) showed highly significant relationship with the knowledge level of tribal and non-tribal rice growers while the age of non-tribal rice growers (-0.19996\*) showed negative significant correlation with their knowledge level.

### **Relationship between selected characteristics of tribal and non-tribal rice growers and their extent of adoption :**

In view of finding mentioned in Table 1, it may be inferred that out of some selected characteristics for tribal and non-tribal rice growers, education (0.38714\*\*, 0.38048\*\*), economic motivation (0.76571\*\*, 0.45294\*\*), scientific orientation (0.56060\*\*, 0.42685\*\*), risk preference (0.73247\*\*, 0.41247\*\*) use of formal sources (0.27890\*\*, 0.24950\*\*) and mass media participation (0.37596\*\*, -0.19639\*) had highly significant relationship with the extent of adoption. Land holding (0.44028\*\*) and annual income (0.31691\*\*) of tribal rice growers had highly significant and positive; and occupation (0.22434\*) had positive significant correlation with their extent of adoption of improved rice production technology.

### **Relationship between selected characteristics of tribal and non-tribal rice growers and their yield performance :**

The result presented in Table 1 reveals that among all selected characteristics of tribal and non-tribal rice growers, economic motivation (0.92731\*\*, 0.52221\*\*), scientific orientation (0.67276\*\*, 0.50594\*\*), risk

preference (0.89089\*\*, 0.53258\*\*) and mass media participation (0.35439\*\*, 0.38276\*\*) showed highly positive significant association with their yield performance of rice. Education (0.2547\*\*) and occupation (-0.34781\*\*) of tribal rice growers had highly, positive and negative significant relationship with yield performance respectively. Whereas, annual income (0.21144\*\*) of non-tribal showed significant relationship with their yield performance.

## CONCLUSION

It can be concluded that the education, scientific orientation, risk preference, formal sources, mass media participation were found highly significant, while, in some cases economic motivation and size of land holding were found significantly correlated with their knowledge level, extent of adoption and yield performance.

## IMPLICATIONS

1. There is an urgent need to organise regular training programme and group discussion particularly in tribal areas to upgrade and update their technical knowledge so as to enable them to increase their rice production.
2. Extent of adoption or improved rice production technology was found to be medium in case of non-tribal rice growers while it was low in case of tribal rice growers. So every effort should be made to increase their extent of adoption so as to increase per hectare yield of rice.
3. The linkage between extension network and research must be effective.