

## Influence of Psychological Characteristics on Rice Production

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### INTRODUCTION

The role of psychological characteristics is very crucial in understanding the human action. Behaviour takes place in situation and it has therefore, profound influence on the individual action. The social system of which individual is member has dominant effect on the behaviour. The farmers decision is influenced not only by personal, social, economic and communicational factors, but psychological factors also make profound influence in their decisions towards existing situation.

Increased production will depend upon the evolution of new technology and its transfer and adoption by farming community. But question arises when generated technology fails to optimize the yield levels in production area. Besides Psychological characters of rice growers, the use of high yielding varieties, seed treatment, seed rate, fertilizer use, irrigation, plant protection measures and proper guidance regarding technical know-how of rice cultivation in their own situation. With this view a study on relationship between selected psychological characteristics of rice growers and their rice production was conducted.

### METHODOLOGY

The first ten villages who may having

higher rice production in Navsari taluka of Valsad district were purposively selected. Out of each village fifteen rice growers were randomly selected. In all, 150 rice growers were interviewed through personal contact.

The independent variables were the psychological characteristics of rice growers. For measuring knowledge, Innovation proneness, Economic motivation and Attitude towards rice technology, the scales developed by Kher (1990), Moulik (1965), Supe (1969) and Vekaria (1989) were used with some modification. While the input use behaviour in terms of adoption was measured with three point systems like fully adopted, partially adopted and not adopted and a score of 2, 1 and zero was assigned, respectively. Then all the rice growers were grouped into three categories with the help of mean and standard deviation.

Chi-square and coefficient of concordance test were applied in order to find out the relationship between selected psychological characteristics of rice growers and rice production.

### RESULTS AND DISCUSSION

The findings of the study are narrated below in Table 1.

The relationship between psycho-

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**Table 1. Distribution of rice growers according to their psychological characteristics and their rice production.**

N = 150

Sr. No.	Characteristics	Level of rice production				Total	X <sup>2</sup> Value	C Value
		Below 1250 kg/ha	1251 to 2500 kg/ha	2501 to 3750 kg/ha	Above 3751 kg/ha			
<b>1. Knowledge level</b>								
	High	3 (2.00)	6 (4.00)	4 (2.67)	13 (8.67)	26 (17.34)	43.89**	0.47577
	Medium	2 (1.33)	31 (20.67)	52 (34.67)	9 (6.00)	94 (62.67)		
	Low	0 (5.33)	5 (3.33)	9 (6.00)	8 (5.33)	30 (19.99)		
<b>2. Innovation proneness</b>								
	High	3 (2.00)	7 (4.67)	15 (10.00)	16 (10.67)	41 (27.34)	41.40**	0.46508
	Medium	3 (2.00)	32 (21.33)	38 (25.33)	3 (2.00)	76 (50.66)		
	Low	7 (4.67)	3 (2.00)	12 (8.00)	11 (7.33)	33 (22.00)		
<b>3. Economic motivation</b>								
	High	6 (4.00)	5 (0.67)	10 (2.00)	11 (4.66)	32 (11.33)	46.31**	0.485569
	Medium	1 (0.67)	36 (24.00)	52 (34.67)	12 (8.00)	101 (67.34)		
	Low	6 (4.00)	1 (0.67)	3 (2.00)	7 (4.66)	17 (11.33)		
<b>4. Attitude towards rice technology</b>								
	Favourable	6 (4.00)	23 (15.33)	34 (22.67)	14 (9.33)	77 (51.33)	30.69**	0.41212
	Neutral	5 (3.33)	0 (0.00)	1 (0.67)	6 (4.00)	12 (8.00)		
	Unfavourable	2 (1.33)	19 (12.67)	30 (20.00)	10 (6.67)	61 (40.67)		
<b>5. Adoption</b>								
	Fully adopted	3 (2.00)	13 (8.67)	41 (27.33)	11 (7.33)	68 (45.33)	25.16**	0.37890
	Partially adopted	10 (6.67)	26 (17.33)	18 (12.00)	12 (8.00)	66 (44.00)		
	Not adopted	0 (0.00)	3 (2.00)	6 (4.00)	7 (4.67)	16 (10.67)		

Figures in parentheses indicate percentage

\*\* Significant at 0.01 level of probability

logical characteristics of rice growers and their rice production are discussed below :

### 1) Knowledge and Production

It is obvious from Table 1 that 20.67 and 34.67 per cent rice growers belonging to 1251 to 2500 kg/ha and 2501 and 3700 kg/ha of rice production level were having medium level of knowledge.

The highly significant chi-square (43.89) and the coefficient of concordance (0.47577) values indicate that the level of rice production is dependent on knowledge level.

### 2) Innovation proneness and production

With respect to the data presented in Table 1, it is revealed that 21.33 and 25.33 per cent rice growers belonging to 1251 to 2500 kg/ha and 2501 to 3750 kg/ha of rice production level were having medium level of innovation proneness.

Highly significant chi-square (41.40)\*\* and coefficient of concordance (0.46508) value indicate that the level of rice production is dependent on innovation proneness.

### 3) Economic motivation and Production

Economic motivation means individuals orientation towards achievement of the maximum economic ends i.e. maximum production of rice crop. It appears from the same table that 24.00 and 34.67 per cent of rice growers having medium economic motivation were belonging to 1251 to 2500 kg/ha and 2501 to 3750 kg/ha of rice production level.

The highly significant chi-square (46.31\*\*) and coefficient of concordance

(0.48569) values show that level of rice production is dependent on economic motivation.

### 4) Attitude and Production

It is universally accepted fact that the attitude of an individual plays an important role in determining his behaviour with respect to a particular object. The data indicate (Table 1) that 15.33, 22.67 and 9.33 per cent of rice growers belonging to 1251 to 2500 kg/ha, 2501 to 3750 kg/ha and above 3751 kg/ha of rice production level, respectively, were having favourable attitude towards rice production technology.

Further highly significant chi-square (30.69\*\*) and coefficient of concordance (0.41212) values indicate that the level of rice production is dependent on attitude of rice producers.

### 5) Adoption and Production

New practices of rice crop have been evolved for maximising the rice production and they have been recommended to the farmers. The relationship between the adoption of rice technology and production presented in Table 1 shows positive and highly significant effects from the value of chi-square and coefficient of concordance.

The data presented in Table 1 show that 8.67, 27.33 and 7.33 per cent rice growers had fully adopted followed by 17.33, 12.00 and 8.00 per cent rice growers had partially adopted improved rice technology were belonging to 1251 to 2500 kg/ha, 2501 to 3750 kg/ha and above 3751 kg/ha of rice production level.

### CONCLUSION

Highly significant chi-square and coefficient of concordance values indicate that rice production is dependent on all the

above mentioned psychological characteristics of rice growers and hence, it is necessary to keep this in mind by extension agencies/workers while evaluating their programmes for increased rice production.

### IMPLICATIONS

- 1) The efforts may be made to organise training programme with appropriate extension methods and communication media would be most useful to the rice growers about the importance of modern agricultural techniques.
- 2) More efforts should be made to establish extension contact.

- 3) The careful understanding of these important variables would enable extension agencies to streamline their efforts in proper direction to get maximum response from the rice growers.
- 4) Intensive propaganda about improved rice production techniques like level of fertilizers, seed rate, transplanting techniques plant protection measures and other package of practices through simple, clear and timely message through mass media and group methods.

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