LEVEL OF KNOWLEDGE AND EXTENT OF ADOPTION OF GURJARI GROWERS REGARDING RECOMMENDED PADDY PRODUCTION TECHNOLOGIES

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Abstract: Rice, wheat, and maize are the three leading food crops in the world; together they directly supply more than 50% of all calories consumed by the entire human population. Rice provides 21% of global human per capita energy and 15% of per capita protein. Although rice protein ranks high in nutritional quality among cereals, protein content is modest. Rice also provides minerals, vitamins, and fiber, although all constituents except carbohydrates are reduced by milling. An ex-post facto research design was used in present investigation. The study was confined to all five talukas of Navsari district. The five villages from each taluka having highest area under Gurjari variety were identified. From each village 10 samples were randomly drawn. In this way, 50 respondents were selected from five talukas and thus, the sample size for the study comprised of 250 respondents. Fifteen independent and two dependent variables were taken for the study. The knowledge measured with the help of structured schedule and adoption scale was developed. The collected data were analyzed by using appropriate method of analysis viz., percentage, mean, rank, t value, standard deviation and correlation coefficient.
Keywords: Rice, independent, adoption.

INTRODUCTION

Paddy is the major staple food for the people of Asian countries and two third of worlds. It is grown in 152 million hectors in the world and produces 586 million tons. The major growing countries are China, India, Indonesia, Bangladesh, Thailand, Japan, Pakistan, Burma and Brazil. (Anon. 2012-13). India stands first in area and second in production and consumption of rice next to China. The farmers of South Gujarat are growing drilled as well as transplanted paddy which covers 45 per cent area of Gujarat. The productivity of drilled paddy is about 1.2 tons / hectare and transplanted is about 2.2 to 2.5 tons / hectare. Navsari district has been considered as rice bowl of South Gujarat. It is cultivated in 42.5 thousand hectares and total production is 102.6 tones with 2410 kg / ha productivity (Anon., 2013). The challenges faced by countries as regard to paddy production is differs from one country to other in terms of population, their preference attached to the commodity as well as diet of

household menu, natural endowment to increase production and the productivity. Considering all these, the annual production needs to be increased from 586 to 756 million metric tons by 2030.

METHODOLOGY

For the present investigation, an ex-post facto research design was used. The study was confined to all five talukas of Navsari district. The five villages from each taluka having highest area under Gurjari variety were identified. The lists of paddy growers were obtained from each *talati-cum-mantri* and out of them the growers who were growing Gurjari variety since last five years were separated. A simple random sampling method was used to select the respondents for the present study. Form each village 10 sample was randomly drawn. In this way, 50 respondents were selected from five villages of one taluka. Thus, the sample size for the study comprised of 250 respondents. Fifteen independent and two dependent variables were taken for the study. The knowledge measured with the help of structured schedule and adoption scale was developed. The collected data were analyzed by using appropriate method of analysis *viz.,* percentage, mean, rank, t value, standard deviation and correlation coefficient.

RESULTS AND DISCUSSION

1.   LEVEL OF KNOWLEDGE ABOUT PADDY PRODUCTION TECHNOLOGY

Knowledge can be said as a product of education or it can be understood as information possessed by an individual. The information regarding knowledge of Gurjari growers about paddy production technology was collected and grouped into three categories *viz.*, (i) inferior level of knowledge (up to 37.00 score), (ii) adequate level of knowledge (38 to 75 score) and (iii) superior level of knowledge (above 75 score). The data in regards are presented in table 1.

Table 1: Distribution of Gurjari growers according to level of knowledge

(n=250)

Sr.	Level of knowledge	Frequency	Percentage
1.	Inferior level of knowledge	14	5.60
2.	Adequate level of knowledge	186	74.40
3.	Superior level of knowledge	50	20.00
	Total	**250**	**100.00**

It is evident from table 1 that majority of the Gurjari growers (74.40 per cent) belonged to adequate level of knowledge followed by 20.00 and 5.60 (per cent) belonged to superior and inferior level of knowledge respectively.

In general, it could be said that the majority of Gurjari growers (94.40 per cent) had adequate to superior level of knowledge. This finding might be due to their medium level of education and inadequate finance.

Similar findings have been reported by Ahire (2001), Swami (2002), Sarkar *et al.* (2002), Sarker (2003), Hossain (2004).

2.   EXTENT OF ADOPTION ABOUT PADDY PRODUCTION TECHNOLOGY

The acceptance of new idea is not a unit act but a complex process which involves a sequence of thoughts and actions. In other words, it is mental process through which an individual passes from first hearing about an innovation to final adoption. In this regards data were collected. These were finally summed up and on the basis of total score obtained by each of the Gurjari growers were categorized as (i) awareness (up to 150.00 score) (ii) trial (151 to 301 score) (iii) adoption (above 301 score).The information in this regards are presented in table 2.

Table 2: Distribution of Gurjari growers according to extent of adoption

(n=250)

Sr.	Extent of adoption	Frequency	Percentage
1.	Awareness	7	2.80
2.	Trial	212	84.80
3.	Adoption	31	12.40
Total		**250**	**100.00**

On perusal of the data in table 2 shows that majority of the Gurjari growers (84.80 per cent) belonged to trial category of adoption process about Gurjari production technology while 12.40 and 2.80 per cent of them were in adoption and awareness categories of adoption process respectively.

It could be concluded that majority (97.20 per cent) of the Gurjari grower belonged to trial to adoption categories of paddy production technology. This finding indicates that even after adequate knowledge about paddy production technology their inability to process the critical information, inputs and inadequate finance might be restrict them as per the

recommendations. This can be eliminated by active participation in different activates may conducted by line departments, university and private organizations.

The finding is in consideration with the finding reported by Ahire (2001), Swami (2002), Prakash *et al.* (2003).

CONCLUSION

From the above discussion it can be concluded that, most of the Gurjari growers possessed adequate to superior level of knowledge and belonged to trial to adoption categories of paddy production technology.

References

[1] Ahire, R.H. (2001). A study on Adoption of recommended technology of paddy growers in Ratnagiri District of Maharastra State. M.Sc. (Agri.) thesis, BSKKV Dapoli.

[2] Anonymous (2012). Report of Deputy Director of Horticulture, Anand, Gujarat.

[3] Anonymous (2013). Food and agricultural organization annual report India.

[4] Swami, P.S (2002). A study on adoption of rice recommended technology by rice growers in of Tamilnadu state.

[5] Sarkar, J.D., Sangode, P.K. and Shivastava, K.K. (2001&2002) Variables Influencing Tribal Leaders' Knowledge and Adoption Gap for Improved Paddy Cultivation Technologies. *Guj. J. Ext. Edn. XII* & XIII: 35-38.

[6] Sarker, M.R.A. (2003). Farmer's knowledge and attitude towards BRRI Dhan 29 variety of rice M.Sc. Thesis, Department Of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

[7] Hossain, M.M. (2004). Farmer's knowledge and adoption of modern *boro* rice cultivation practices, M.Sc. Thesis, Department Of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

[8] Prakash, Vinod., Harish Chandra Singh and Prajapati, M.K. (2003). Adoption extent of rice growers regarding rice production technology. *Raj. J. Ext. Edn*., 11: 55-58.