To Determine the Level of Information Input and Processing Behavior of Hybrid Rice Respondents

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Abstract:- Hybrid rice is a cereal crop which belongs to the family Poaceae/ Gramineae. The study was conducted purposefully in block Duvvur of Kadapa district of Andhra Pradesh. Total 120 respondents were selected randomly from 6 villages and the results of descriptive study revealed that the improved production practices of hybrid rice were medium. The analysis showed that the majority (55%) of the respondents had the medium level of adoption followed by low (27.5%) and high (17.5%) respectively towards improved production practices of hybrid rice. Correlation analysis as adoption with other independent variables results revealed that the Age, Education, Occupation, Land holding, Annual income, Material possession, Livestock possession, Organization participation, Market orientation, Economic motivation were found to be positive and significant at the 0.01 and 0.05.

I. INTRODUCTION

Rice is the seed of the grass species *Oryza sativa* (Asian rice)or *Oryza glaberrima* (African rice). As a cereal grain, it is the most widely consumed staple food for a large part of the world's human population. Rice is the most important grain with regard to human nutrition and caloric intake, providing more than one-fifth of the calories consumed worldwide by humans. Hybrid rice is a type of rice that has been bread from two very different parents. It can significantly out yield other rice varieties. IRRI is working with its partners to develop new and improved hybrid rice varieties. Hybrid rice can out yield other varieties of rice, it is a key technology that meets the increasing global demand for rice. In the 1970s, China's hybrid rice breeding program averted an impending famine. Today, hybrid rice closes yield gaps evident in many areas. It also raises yield potential. Bountiful harvests mean that farmers earn higher incomes and rice becomes available and affordable to more consumers.

In 2008, IRRI established the Hybrid Rice Development Consortium (HRDC) which aims to renew and strengthen collaboration between the private and public sector, and improve hybrid rice technology dissemination. Through the HRDC, IRRI has been sharing a large number of hybrid rice varieties and parental lines with its partners.

Increases in Productivity are vital for agricultural profitability and development. As long as productivity per hectare rises, the commercial profitability per hectare may be expected to rise despite relative stability in the unit prices of inputs and outputs. However, when yield response to input use begins to decline, commercial profitability per hectare is threatened.

II. MATERIALS AND METHOD

For the present study, kadapa district of Andhra Pradesh has been selected purposively selected for the because of the available of both the highly irrigated area for the hybrid rice. Six villages (Machanapalli, Nelatur, Duvvur, Gudipadu, Chinthakunta, Rajupallm) were selected randomly. A well structured interview schedule was prepared and pre-tested for the study. The sample population of 120 hybrid rice farmers has been selected based on random sampling method from the selected 6 villages. Relevant questions on hybrid rice include production practices were collected with well structured interview schedule to understand the adoption levels of the respondents and answers were recorded with 3 points scale as fully adoption(3), partially adoption(2), non adoption(1). The data was tabulated, analyzed and interpretations were drawn on the basis of percentage analysis and correlation test using SPSS software and Microsoft excel.

III. RESULTS

➢ *Adoption of Farmers towards Improving Hybrid Rice Production Practices*

The (table-1) presented the distribution of the respondents based on their level of adoption towards improve hybrid rice production practices. The majority of the respondents had partial adoption Sona masoori (35%), NDLR Samba masoori (52.5%), seed rate(46.67%), seed treatment(50%), Source of seed (45.83%), Transplanting (50%), Sowing(30%), Spacing(50%), FYM(45%), NPK(53.33%), Weed management (46.67%), Irrigation(40%), Disease(41.67%), pest(54.17%), Harvest(44.17%), Post harvest(44.17%), Yield(42.5%) respectively. The (Table-2) present the distribution of the respondents based on level of adoption towards improved hybrid rice production practices. About (55%) of the respondents were having medium level of adoption towards

improved hybrid rice production practices followed by low (27.5%), and high level of adoption (17.5%) respectively.

➢ *Factors Influencing the Adoption of Farmers towards Improved Hybrid Rice Production Practices.*

The (Table-3) presented that the relationship between the independent variables with adoption towards improved hybrid rice production practices. The variables like age, education, market orientation were found significant 0.01, occupation, material possession, organization participation, economic motivation were found significant 0.05 and land holding, annual income, livestock possession were found no significant relationship with adoption towards improved hybrid rice production practices.

From the above interpreted results, it was found that there is a medium level of adoption towards improved hybrid rice production practices in farmers of Duvvur mandal. The age of the farmers were found in to be negatively and significantly correlated with the level of adoption of hybrid rice growers. Education, occupation, material possession, organization participation, market orientation, economic motivation were found to significantly correlated with the level of adoption of hybrid rice growers. Land holding, annual income, livestock possession were found as no significant relationship with the level of adoption towards improving hybrid rice growers.

S.NO	Category	Extent of adoption					
		Fully adoption		Partially adoption		Non adoption	
1	Soil test	46	38.33	53	44.17	21	17.5
2	Sona masoori	59	49.16	42	35	19	15.84
	NDLR Samba masoori	36	30	63	52.5	21	17.5
3	Seed rate	48	40	56	46.67	16	13.33
4	Seed treatment	46	38.33	60	50	14	11.67
5	Source of seed	48	40	55	45.83	17	14.17
6	Transplanting	47	39.17	60	50	13	10.83
7	Sowing	75	62.5	36	30	9	7.5
8	Spacing	44	36.66	60	50	16	13.34
9	Fym	58	48.33	54	45	8	6.67
	NPK	39	32.5	64	53.33	17	14.17
10	Weed management	49	40.83	56	46.67	15	12.5
11	Irrigation	57	47.5	48	40	15	12.5
12	Disease	55	45.83	50	41.67	15	12.5
	Pest	44	36.66	65	54.17	11	9.17
13	Harvest	47	39.16	53	44.17	20	16.67
14	Post harvest	46	38.33	53	44.17	21	17.5
15	Yield	53	44.16	51	42.5	16	13.34

Table 1:- Information output of extent of adoption

S. NO	CATEGORY	FREQUENCY	PERCENT
1	Low	33	27.5
2	Medium	66	55
3	High	21	17.5
	TOTAL	120	100

Table 2:- Overall Extent of Adoption of the respondents

Sl. no	Independent variable	Correlation coefficient (r)
		INFORMATION BEHAVIOUR
1	Age	-0.367**
2	Educational	0.562**
3	Occupation	0.157*
4	Land holding	0.119NS
5	Annual Income	0.004NS
6	Material possession	0.150*
7	Livestock Possession	0.100NS
8	Organisation participation	0.234*
9	Market orientation	0.250**
10	Economic motivation	0.161*

Table 3:- Correlation of selected independent variables with information management behavior

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
NS Non significant

IV. CONCLUSION

The present study revealed that the level of adoption of farmers towards improved hybrid rice production practices are the medium. The study established farmers adoption in improved hybrid rice production as low, medium, high respectively. Correlation table above show the significant relationship between age, education, occupation, material possession, organization participation, market orientation, and economic motivation. The farmers should increase more agriculture as main occupation , more information from mass media will give rise to increase in hybrid rice production growers. Therefore, high investigation are needed to enhanceing productive capacity of hybrid rice growers and this would help to improve the existing medium level of adoption towards improved hybrid rice production growers.

V. APPLICATION OF RESEARCH

This research can be applied for better policy maker, extension workers and researchers to work in line of farmers perspective for improving hybrid rice and minimizing the gap in extent of adoption.

➢ *Research Category*; Agriculture Extension.

➢ *Abbreviations*:
- FAO= Food and Agriculture Organization
- SPSS=Statistical Packages for Social Sciences

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