INFORMATION SOURCES AS AN EFFECTIVE TOOL ABOUT RECOMMENDED TECHNOLOGY: A CASE STUDY OF GREEN BELT, BALOCHISTAN PROVINCE.

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ABSTRACT

The present survey was conducted in the rice belt of Balochistan province. A random sampling technique was adopted to achieve a representative sample. About hundred (100) growers were selected. The respondents were asked to provide their perceptions regarding sources of information about crop production technologies. The results shows that half (50%) of the farmers belonged to the age category of 31 to 40 years. Majority (60%) of the farmers were illiterate. The result further showed that the farmers "always" received information regarding recommended technologies from neighboring farmers and were ranked 1st. Therefore, it was recommended that an extension worker should stimulate farmers to use them properly.

Key words*: Information sources, recommended technology, green belt, Balochistan.*

INTRODUCTION

Green belt of the province was famous for the oilseed and rice crops. The rice is the major cash and important food crop of the country after wheat crop and rice production comprises 40 per cent of basmati (fine) and 60 per cent of coarse types. Rice has the potential to become a high value asset for Pakistan's economy; however it needed value addition in its production to harness optimal utilization. On the other hand, there has been manifold increase in the exports of the basmati rice from the country, according to the data of Rice Exporters Association of Pakistan. During the year 2009-10 rice was cultivated at an area of 2.88 million hectares that resulted in the production of 6.88 million tons, in 2010-11 rice was cultivated at an area of 2.37 million hectare that produced 4.82 million tons and similarly in 2011-12 rice was cultivated at an area of 2.57 hectares with 6.16 million tons production. The rice crop is low in productivity and production is affected by water shortage and there are enormous post harvest losses and issue of Afflation which affect crop value and quality especially in case of rice export (GoP, 2013).

Rice crop production in Pakistan holds an extremely important position in agriculture and the national economy. Pakistan is the world's fourth largest producer of rice, after China, India and Indonesia. Each year, it produces an average of 6 million tonnes and together with the rest of the Indian subcontinent; the country is responsible for supplying 30% of the world's paddy rice output. Most of these crops are grown in the fertile Sindh and Punjab region with millions of farmers relying on rice cultivation as their major source of employment. Among the most famous varieties grown in Pakistan include the Basmati, known for its flavor and quality (FAO, 2010).

Perhaps the most significant innovation in the area of rice production is the development of high yielding varieties and hybrid seed. New varieties and hybrids provide the potential for many changes to the industry, including higher yields and the possibility of price impacts, due to increased supply. Furthermore, modern seeds lead to increased production on less land, which spares additional resources (i.e. water, labor, and land) needed to sustain the world's population (Borlaug 2003; Bolorunduro et al., 2004).

Justification of the study

In spite of favorable climate, soil conditions, availability of irrigation, use of pesticides, the production of rice is not up to the mark (Abbas, 2003). For increasing the yield and to protect the crop from insect pests, it becomes necessary to transfer latest technologies to farmers and also motivate them to adopt those technologies (Chaudhary, 1997). The purpose of this study is to investigate the information sources and their effectiveness on adoption of recommended technology and level of technology adoption crops in green belt of the Balochistan province.

Objectives

1. To determine the demographic characteristics of the rice growers.
2. To determine the sources of information and their effectiveness on adoption of recommended technologies of rice crop.
3. To developed the concert recommendations for the future strategies.

Materials and methods

The study was conducted in the green belt of the province by using the survey method. The green belt was basically agricultural site having fertile

land with scattered net of irrigation system, whereas oilseed and rice were considered major crops of the areas. To complete the research work within the shortest possible period with limited available resources, the study confined only in green belt with a 100 sample size as purposively. A simple random sample of one hundred farmers was obtained. The researcher personally visited and interviewed from those 100 farmers with the help of well-structured questionnaire. Data were tabulated, summarized and analyzed through SPSS (Statistical Package for Social Science) Computer Software.

RESULTS

Demographic Results

The demographic information one of the major tool to dissemination of information. The demographic characteristics of the growers in the present study such as age, and educational qualification play an important role in determining the grower's response towards adoption of recommended technologies.

Table-1. Age group of the respondents

Age	N	%
Up to 30 years	3	3.0
31 to 40	50	50.0
40 to 50	40	40.0
51 and above	9	9.0

The collected data about age are presented in table-1 which indicates half (50%) of the farmers belonged to the age category of 31 to 40 years, while 42% belonged to 40 to 50 years, and only 9% belonged to 51 and above years.

Table-2. Education group of the respondents

Education	N	%
Illiterate	60	60.0
Matric	28	28.0
Intermediate	7	7.0
Graduate	4	4.0
Others	1	1.0

Table-2 indicates that majority (60%) of the farmers were illiterate, followed by 28% were matriculation.

Table-3. Experiences of the respondents

Experiences	N	%
Up to 5	5	5.0
6 to 15	15	15.0
16 to 30	25	25.0
31 and above	5	5.0

The experiences of the farmers an important variables, which might influence of the farmers adoption rate, in this regard, the raw data was collected at the field level. The collected data about experiences are presented in table-3 which indicates that most (20%) of the farmers had a 16 to 30 years farmers experiences. belonged to the age category of 31 to 40 years, while 15% of the respondents had to 6 to 15 years farming experience, However, up to 5 and 31 or above of the respondents had 5 years farming experiences respectively.

Table-4. Types of family of the respondents

Types of family	N	%

Joint/ Combine	93	93.0
Single	7	7.0
Any other	40	0.0

In Pakistan the most of the household lived in the combined family system. In this regard, the raw data were gathered. Collected data types of family are presented in table-4, which indicates that the vast majority (93%) of the respondents had preferred the combine family system followed by (7%) of the farmers had preferred the single family system.

Table-5. Background of the respondents

Age	N	%
Rural	88	88.0
Urban	12	12.0

The study further enquired to the respondents to provide their perceptions about their background in this regard, the data was depicted or presented in table-5, which indicates vast majority (88%) of the farmers belonged to the rural areas, while 12% belonged to urban areas.

Use of information sources as perceived by farmers

The farmers were inquired to their insight based on sources of information in this regard, the responses of the respondents were arranged through rating using Likert type of scaling like (1= Not at all, 2= Some times, 3= Most of times, 4= Almost always and 5= Always). The information about recommended technologies are presented in table-3.

Sources of information	Not at all	Some time	Most of time	Almost always	Always	Mean	S.D	Rank

	F.	% age	F.	% age	F.	% age	F.	% age	F.	% age		.	
Neighboring Farmer	1	1.0	3	3.0	7	7.0	24	24.0	65	65.0	4.49	0.83	1st
Radio	4	4.0	11	11.0	25	25.0	36	36.0	24	24.0	3.65	1.08	2nd
T.V	17	17.0	40	40.0	31	31.0	9	9.0	3	3.0	2.41	0.97	3rd
Extension worker	75	75.0	3	3.0	14	14.0	8	8.0	0	00	1.55	1.00	4th
Demonstration Plots	78	78.0	1	1.0	15	15.0	5	5.0	1	1.0	1.50	0.98	5th
News papers	86	86.0	2	2.0	8	8.0	3	3.0	1	1.0	1.31	0.82	6th
Magazines	94	94.0	6	6.0	0	0	0	0	0	0	1.06	0.23	7th
Contact Farmer	100	100	0	0	0	0	0	0	0	0	1.00	0.00	8th

Table-6. Information sources as perceived by farmers

Table-3, highlights the frequency of use of information sources regarding the use of recommended technologies as perceived by farmers. The result shows that majority of the farmers "always" received information regarding recommended technologies from neighboring farmers and were ranked 1st with a mean score of (Mean = 4.49, S.D = 0.83). Radio was ranked 2nd with a mean score of (Mean = 3.65, S.D = 1.08) and Television was ranked 3rd with a mean score of (Mean = 2.41, S.D = 0.97) respectively. The least perceived sources of information were newspapers ranked 6th with a mean score of (Mean = 1.31, S.D = 0.82). Magazines ranked 7th with a mean score of (Mean = 1.06, S.D = 0.23) and contact farmers ranked 8th with a mean score of (Mean = 1.00, S.D = 0.00).

Conclusions and recommendations

Agriculture sector being the life line of the Pakistan's economy continues to be the single largest sector and a dominant driving force for growth and development of the national economy. In-spite of unfavorable climate, soil conditions, availability of irrigation, use of pesticides, Pakistan is standing all 13th position in the world's rating in getting yield per hectare. Therefore, for increasing the yield and to protect the crop from insect pests, it becomes necessary to transfer latest technologies to farmers and also motivate them to adopt those technologies. Therefore, this study was designed to describe to what extent the farmers are aware of various improved technologies of rice and weather these technologies are properly being diffused and adopted by the farmers. It was conclude that the half (50%) of the farmers belonged to the age category of 31 to 40 years. Majority (60%) of the farmers were illiterate. The result further showed that the farmers "always" received information regarding recommended technologies from neighboring farmers and were ranked 1st with a mean score of (Mean = 4.49, S.D = 0.83). On the basis of research findings following recommendations put forward. It was found that farmers do not care to use recommended land preparation technologies and fertilizer application. Therefore, it is recommended that an extension worker should stimulate farmers to use them properly. An extension worker must visit farmer's field for their proper guidance. The study found that the performance of agriculture extension services was insignificant in the whole diffusion-adoption process of recommended technologies. Therefore it was recommended that agricultural extension services should come up with some positive attitude in this regard.

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