

# Role of Print Media in the Dissemination of Recommended Sugarcane Production Technologies Among Farmers in the Central Punjab-Pakistan

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## ABSTRACT

This study was carried out to assess the role of print media in the dissemination of sugarcane production technologies among the farmers of the central Punjab. It was found that nearly 58.5, 22.0 and 19.5% farmers agreed that pamphlets, magazines and newspapers, respectively are suitable for dissemination of sugarcane production technologies. Significant number of farmers of Faisalabad district (92.0%) consulted the printed material as extension guide about sugarcane production technologies, which was higher as compared to other study districts.

**Key Words:** Dissemination; Print media; Sugarcane; Technologies

## INTRODUCTION

Pakistan is predominantly an agricultural country. However, agricultural production of almost all crops obtained in the country is far less than that achieved in developed countries. Research results from various agricultural research institutes usually remain confined to researchers for references and progressive farmers for trials. The research results are also seldom translated and disseminated to the common farmers who make up the vast majority of farming community. The successful research results are to be taken at the doorstep of the farmers, especially to the small farmers, which they can understand and apply (Ayaz, 1993).

Research and experience of the developed countries have shown that key to increase per hectare yield lies in the adoption of modern technologies (FAO, 1985). A lot of research has been done on various aspects of agriculture. As a result, a number of new farming practices have been evolved, which if adopted, can revolutionize our agricultural economy and can place it on sound and stable lines. However, in many developing countries including Pakistan, wide adoption of research results remains quite limited. This situation calls for a system, which allows efficient adequate information flow from researchers to farmers and vice versa. In this context, the print media can play an important role in the dissemination of improved agricultural technologies. The printed materials can be distributed in meetings, fairs, exhibitions, shows, and farmers' days.

Print media in Pakistan can be utilized by a sizable section of the farming community. Literate farmers give more importance to print media for the agricultural information. Print media is cost-effective and is useful for supplementing other media programmes on radio and television. Hussain (1993) argued that 66% of the farmers of

Pakistan meet their information needs through mass media, which include both electronic and print media. Print media can be regarded as effective tool of communication commonly used by extension agencies. Muhammad and Garforth (1999) found that mass media proved relatively more popular among farmers than the direct extension contact.

The present study was focused on assessing the role of print media in the dissemination of recommended technologies of sugarcane among the farmers of the central Punjab. The sugarcane was selected as a target crop keeping in view it as an important cash crop of the study area (Faisalabad). This crop occupies from 20 to 35 % of total farm area during Rabi and Kharif seasons (Bashir *et al.*, 1999) in the mixed zone of irrigated Punjab. Moreover, the per hectare cane yield in this division is relatively high as compared to other divisions of the Punjab.

## MATERIALS AND METHODS

A farm level survey was conducted during November 2001 in Faisalabad division, which comprises Faisalabad, Jhang and T.T. Singh districts. From each district, four markazes were selected at random. From each selected 'markaz', 15 sugarcane growers were selected at random as respondents. Thus, total number of respondents was 180. A stratified random sampling technique was adopted to achieve a representative sample. The data were collected through farmers' interviews using a well-structured questionnaire. The data thus obtained was analyzed to draw conclusions and make pertinent recommendations.

The farmers were classified into small, medium and large farm categories according to size of their operational land holding. The farmers operating a farm of less than 12.5 acres were termed as small farmers, between 12.5 to 25

acres as medium farmers, and more than 25 acres as large farmers. The distribution of the sample farmers has been presented in Table I.

**Table I. Distribution of the sample farmers**

Districts	Number	Percent farmers	Farm size groups			All
			Small	Medium	Large	
T. T. Singh	60	33.3	30	22	8	60
Faisalabad	60	33.3	31	18	11	60
Jhang	60	33.3	23	14	23	60
Total	180	100	84	54	42	180

## RESULTS AND DISCUSSION

**General information about print media of sample farmers.** It has been observed that the literate farmers in the study area have been consulting printed materials about sugarcane continuously for the last six and a half years. Table II reveals that the number of farmers in Jhang district (50%) who consulted the pamphlets of sugarcane production technologies was relatively higher than that of other districts. Whereas, the farmers of T.T. Singh (25%) who were found studying the magazines about sugarcane production technologies were higher than those of other districts. About 17% farmers of Jhang district studied the newspapers for getting the information regarding sugarcane production technologies in the study area. Table III reveals that large proportion of small farmers (47.4%), large farmers (26.1%) , and medium farmers (23.5%) selected the pamphlets, magazine, and newspaper, respectively for sugarcane production technologies.

**Table II. General districts wise information of sample farmers about print media**

Items	Districts			All
	T.T. Singh	Faisalabad	Jhang	
Reading time (years) of printed material about agriculture	6.93	6.24	6.50	6.50
<b>Selected printed material</b>				
Books	00.0	00.0	00.0	00.0
Pamphlets	31.3	44.0	50.0	42.4
Magazines	25.0	20.0	16.7	20.3
Newspapers	12.50	16.0	16.7	15.3
Pamphlets +Magazines	25.0	12.0	5.6	13.6
Pamphlets +Newspapers	6.3	00.0	11.1	5.1
Magazine +Newspapers	00.0	8.0	00.0	3.4

**Most suitable forms of printed material.** Tables IV and V reflect that 58.5, 22.0 and 19.5% farmers responded that pamphlets, magazines and newspapers, respectively were the most suitable forms of print media for the dissemination of sugarcane production technologies in the study area.

**Table III. General information of sample farmers about print media by farm size**

Items	Farm size groups			All
	Small	Medium	Large	
Reading time (years) of printed material about agriculture	5.63	5.88	6.91	6.50
<b>Selected printed material</b>				
Books	00.0	00.0	00.0	00.0
Pamphlets	47.4	35.3	43.5	42.4
Magazines	15.8	17.6	26.1	20.3
Newspapers	10.5	23.5	13.0	15.3
Pamphlets +Magazines	15.8	17.6	8.7	13.6
Pamphlets +Newspapers	5.3	00.0	8.7	5.1
Magazine +Newspaper	5.3	5.9	00.0	3.4

**Table IV. Suitable forms of print media as reported by sample farmers districts wise**

Items	Districts			All
	T.T. Singh	Faisalabad	Jhang	
<b>Suitable form of print media</b>				
Pamphlets	28.6	63.2	66.7	58.5
Magazines	42.9	15.8	20.0	22.0
Newspapers	28.6	21.1	13.3	19.5

**Table V. Suitable forms of print media as reported by sample farmers by farm size**

Items	Farm size groups			All
	Small	Medium	Large	
<b>Suitable form of print media</b>				
Pamphlets	61.0	50.0	58.8	58.5
Magazines	11.0	16.17	35.3	22.0
Newspapers	27.8	33.3	5.9	19.5

**Consulting printed material about sugarcane crop.** A significant number of farmers of Faisalabad district (92.0%) used the printed material about sugarcane production technologies, which was higher as compared to the other districts (Table VI). A vast majority of large farmers (90.9%) consulted the printed material about sugarcane production technologies (Table VII). There was a notable observation that 73.1% farmers used printed material about all the sugarcane production technologies in the study area (Tables VI & VII).

**Table VI. Consultation of printed material about sugarcane crop by sample farmers districts wise**

Items	Districts			All
	T.T. Singh	Faisalabad	Jhang	
<b>Consulted print media about sugarcane</b>				
No	7.1	00.0	00.0	1.8
Yes	85.0	92.0	66.7	82.5
<b>Sugarcane technologies studied in print media</b>				
Varieties	27.3	13.0	28.6	20.8
Plant protection	18.2	4.3	00.0	6.3
All technologies	54.6	82.5	71.4	73.1

**Table VII. Consultation of printed material about sugarcane crop by sample farmers by farm size**

Items	Farm size groups			All
	Small	Medium	Large	
<b>Consulted print media about sugarcane</b>				
No	5.3	00.0	00.0	1.8
Yes	68.4	87.5	90.9	82.5
<b>Sugarcane technologies studied in print media</b>				
Varieties	35.7	8.3	18.2	20.8
Plant protection	14.3	8.3	00.0	6.3
All technologies	50.0	83.2	81.7	73.1

**Adoption.** The data presented in Tables VIII and IX indicate that a large section of farmers of T.T. Singh district adopted the sugarcane production technologies (i.e. varieties, sowing methods, plant protection, fertilizers application, eradication of weeds and irrigation methods), which was significantly higher as compared to other districts. The sizeable proportion of large farmers adopted the sugarcane production technologies which was higher as compared to other farm size groups

**Table VIII. Adoption of sugarcane production technologies by sample farmers disseminated through printed material districts wise**

Items	Districts			All
	T.T. Singh	Faisalabad	Jhang	
Varieties	80.0	41.7	58.8	57.1
Sowing methods	60.0	29.7	43.8	41.8
Fertilizer application	46.7	20.8	35.3	32.1
Plant protection	46.7	25.0	25.0	30.9
Eradication of weeds	33.3	20.8	37.5	29.1
Irrigation methods	46.7	25.0	31.3	32.7

**Table IX. Adoption of sugarcane production technologies by sample farmers disseminated through printed material by farm size**

Items	Farm size groups			All
	Small	Medium	Large	
Varieties	41.2	56.3	69.6	57.1
Sowing methods	17.6	37.5	63.6	41.8
Fertilizer application	11.8	31.3	47.8	32.1
Plant protection	23.5	37.5	31.8	30.9
Eradication of weeds	11.8	31.3	40.9	29.1
Irrigation methods	17.6	43.8	36.4	32.7

**Reasons for non-adoption of sugarcane technologies disseminated through printed material.** The data presented in Tables X and XI depict that lack of resources was the main reason due to which farmers could not adopt the sugarcane production technologies sowing methods, recommended varieties, insect control, fertilizer application, eradication of weeds and irrigation methods as pointed out by most of the farmers. Other important reasons were non-availability of seed of new varieties and preference given by the farmers to their own technologies.

**Table X. Reasons for non- adoption of recommended sugarcane technologies disseminated through printed material by sample farmers districts wise**

Items	Districts			All
	T.T.Singh	Faisalabad	Jhang	
<b>Varieties</b>				
New variety seed was not available	00.0	25.0	16.7	19.0
Lack of resources	33.3	25.0	50.0	33.3
No information on sugarcane crop	00.0	00.0	16.7	4.8
Farmers using their own techniques	33.3	25.0	00.0	19.0
<b>Sowing methods</b>				
Farmers using their own techniques	16.7	25.0	00.0	16.7
Lack of resources.	16.7	50.0	50.0	43.3
No information on sugarcane crop	00.0	00.0	12.5	3.3
<b>Fertilizer application</b>				
Lack of resources.	75.0	27.8	45.5	43.2
No problem in using	25.0	72.2	53.06	56.7
<b>Plant protection</b>				
Lack of resources	11.1	47.1	45.5	37.8
No problem of insects and disease	11.1	29.3	9.1	18.9
<b>Eradication of weeds</b>				
Lack of resources	80.0	33.3	54.5	51.3
No problem of weeds	20.0	66.6	45.5	48.7
<b>Irrigation methods</b>				
Lack of resources	15.4	29.4	36.4	26.8
Shortage of irrigation water	00.0	41.2	9.1	19.5

**Table XI. Reasons for non -adoption of recommended sugarcane technologies disseminated through printed material by sample farmers by farm size**

Items	Farm size groups			All
	Small	Medium	Large	
<b>Varieties</b>				
New variety seed was not available	00.0	50.0	14.3	19.0
Lack of resources	50.0	00.0	42.9	33.3
No information on sugarcane crop	25.5	16.7	14.3	19.0
Farmers using their own technique	12.5	00.0	00.0	4.8
<b>Sowing methods</b>				
Farmers using their own technique	15.4	22.2	12.5	16.7
Lack of resources.	38.5	44.4	50.0	43.3
Not study about s/cane crop	7.7	00.0	00.0	3.3
<b>Fertilizer application</b>				
Lack of resources	42.9	40.0	46.2	43.2
No problem in using	58.2	60.0	53.9	56.7
<b>Plant protection</b>				
Lack of resources	46.2	33.3	33.3	37.8
No problem of insects and disease	15.4	22.2	20.0	18.9
<b>Eradication of weeds</b>				
Lack of resources	42.9	60.0	53.3	51.3
No problem of weeds	57.2	40.0	46.7	48.7
<b>Irrigation methods</b>				
Lack of resources	33.3	10.0	31.3	26.8
Shortage of irrigation water	13.3	30.0	18.8	3.5

## CONCLUSIONS

- The farmers of the study area have been using the printed materials about sugarcane production technologies continuously for the last 6.5 years.
- Majority of the farmers of study area consulted the pamphlets, the magazines and newspapers for getting the information regarding sugarcane production technologies.
- Pamphlets, magazines and newspapers were regarded as the most suitable forms of print media for adoption of sugarcane production technologies.
- A significant number of farmers of Faisalabad district (92.0%) consulted the printed material about sugarcane

production technologies, which was relatively higher than that of other districts.

- A large number of farmers of T.T. Singh adopted the sugarcane production technologies (i.e. varieties, sowing methods, plant protection, fertilizers application, eradication of weeds and irrigation methods), which was significantly higher as compared to other districts.
- A significant proportion of large farmers adopted the sugarcane production technologies, which was higher as compared to other farm size groups.
- Lack of resources was perceived to be the main hindrance in the adoption of sugarcane production technologies by most of the farmers.

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(Received 10 November 2002; Accepted 20 December 2002)