

Motivational Sources and Knowledge of Farmers in Adoption of Drip Irrigation System

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ABSTRACT

The present study was purposively undertaken in the two talukas viz., Danta and Amirgadh talukas under NAIP jurisdiction of Banaskantha district of Gujarat State. The present study was confined to ex-post-facto research design. Used motivational information sources by majority of the respondents were: friends, self experience, neighbours and village level worker. Knowledge about drip irrigation system was found to be medium among majority (67.50 %) farmers.

Keywords: Motivational Sources, Adoption, Knowledge, Drip Irrigation

INTRODUCTION

Water is one of the most crucial and precious natural resources, vitally important for agricultural development and our daily needs. It is an indispensable resource that permits every aspect of human society and affects every man, woman and child. Intensified agriculture and outgrowing population are depleting the already scarce resource, "the water." Although, water is manageable resource yet, it is often used in crop production quite which initially enters the lands and finally becomes available for crop use in fields. The solution to the water related problems is to evaluate the existing irrigation system so as to reduce the losses of this precious commodity and thereby increase its efficient use.

For increasing the agricultural production, the importance of irrigation is fully realized, but the proper use of water is seldom practiced in our country. The regularized and controlled irrigation increases crop production, reduce water cost, conserves soil, covers more area under irrigation and thus, brings prosperity at home.

Generally, farmers look for a method of irrigation, which is most efficient with less water, labour, fertilizer and power requirements. Among various irrigation methods, the drip irrigation system is the advanced method of irrigation to overcome the various problems of water losses and other to minimize problems such as labour, money and water

management. This method is rapidly gaining importance in the area where water is scarce and high value crops are produced.

Drip irrigation is not a new method but developed all over the world during the last two decades. The countries, which have brought substantial area under drip irrigation, include U.S.A., Spain, Australia, South Africa, Israel and Italy.

In Gujarat State, North Gujarat regions are considered as dry farming areas. The availability of water for irrigation is extremely scarce and irregular. Moreover, the quality of underground water is also not up to the desirable level. Also in some region there are some problems of scarcity as well as high water table resulting in salinity due to abundance of water. The specific objectives of this study were as under:

OBJECTIVES

- (i) To know motivational sources for adoption of drip irrigation system among the farmers
- (ii) To measure knowledge level of the farmers about drip irrigation system

The main idea behind present study was to know the adoption of drip irrigation system by the farmers of NAIP

jurisdiction of Banaskantha district of North Gujarat. So far, very little studies on adoption of drip irrigation system by the tribal farmers were carried out in India and not much work in this direction has scientifically been done in Gujarat state also. Hence, tribal pockets of Banaskantha district have been included in the present study.

METHODOLOGY

The present study was conducted in Banaskantha district of North Gujarat Agro Climatic Zone of Gujarat state with the intension of evaluating the adoption of various aspects of drip irrigation system by the farmers. To get higher production with minimum cost and limited water resources,

the farmers of Banaskantha district have widely adopted drip irrigation system. Hence, Banaskantha district was selected. Among the 12 talukas of Banaskantha district two talukas viz., Danta and Amirgadh were purposively selected for the study as NAIP-III is operating in these talukas. In both the talukas, one cluster covering three villages is the operational area of the NAIP. Both the clusters were selected. After selecting villages, a list of the farmers who had adopted drip irrigation system was obtained from NAIP office/Agricultural Extension Office / village level workers. Form each village, 20 respondents were selected randomly. Thus, the final size of sample was of 120 respondents.

Table 1 : Distribution of the respondents according to motivational sources of information utilized by drip owners

n = 120

Sr. No.	Name of sources	Total score	Mean score	Rank
A Formal sources				
1	Village Level Worker	134	2.17	IV
2	Agril. Extension Officer	022	0.18	XXIII
3	Subject Matter Specialist	027	0.22	XXI
4	Agril. Scientist	033	0.27	XX
5	Krishi Vigyan Kendra	046	0.38	XIX
6	Farmer’s Training Center	070	0.58	XVII
7	Service Co-operative Society	260	2.17	XII
8	Fertilizer Depot	132	1.10	XIII
9	Dist. Agril. Officer	008	0.07	XXIV
B Informal sources				
10	Neighbors	293	2.44	III
11	Friends	323	2.70	I
12	Relatives	259	2.16	V
13	Progressive farmers	235	1.96	VII
14	Local leaders	023	0.19	XXII
C Mass Media				
15	Radio	105	0.87	XIV
16	Television	232	1.93	VIII
17	News paper	238	1.98	VI
18	Printed literature	181	1.51	IX
19	Exhibition	076	0.63	XVI
20	Agril. Fair	098	0.82	XV
D Others				
21	Crop demonstration	168	1.40	X
22	Self experience	314	2.61	II
23	Field visit	146	1.22	XI
24	Exposure visit	065	0.54	XVIII

RESULTS AND DISCUSSION

Motivational sources of information utilized by drip owners

It is evident from the Table 1 that almost all the

enlisted sources had motivated the drip owners in adopting drip irrigation system. However, the source of viz., friends with the mean score 2.70 was ranked first followed by self experience (2.61 mean score), neighbours (2.44 mean score) and village level worker (2.17 mean score) and were ranked

2nd, 3rd and 4th, respectively. The respondents assigned 5th, 6th, 7th and 8th rank to the sources viz., relatives (2.16 mean score), news paper (1.98 mean score), progressive farmer (1.96 mean score) and television (1.93 mean score), respectively. Respondents assigned 9th and 10th ranks to the sources viz., printed literature (1.51 mean score) and crop demonstration (1.40 mean score), respectively. The sources viz., field visit (1.22 mean score), service co-operative society (1.12 mean score) and fertilizer depot (1.10 mean score) were ranked 11th, 12th 13th, respectively.

Remaining sources have motivated to less number of farmers or have been utilized occasionally and hence, their mean score was observed less than 1.00. Among formal category, such sources in descending order were; Farmer’s Training Center (0.58 mean score), Krishi Vigyan Kendra (0.38 mean score), Agricultural Scientist (0.27 mean score), Subject Matter Specialists (0.22 mean score), Agricultural Extension officer (0.18 mean score) and District Agriculture Officer (0.07 mean score).

Only local leaders (0.19 mean score) in informal category was found securing less than 1.00 mean score. In case of mass media, the sources with less than 1.00 mean score were; radio (0.87 mean score), exhibition (0.63 mean score) and agricultural fair (0.82 mean score).

Table 2 : Distribution of the respondents according to their level of knowledge about drip irrigation system n = 120

Sr. No.	Level of knowledge	No.	Per cent
1	Low (up to 41.00 index)	19	15.83
2	Medium(between 42.00 to 64.00 index)	81	67.50
3	High (above 64.00 index)	20	16.67

Mean = 52.6890

S.D. = 11.7656

It is evident from the Table 2 that majority (67.50 %) of the farmers possessed medium level of knowledge,

followed by 16.67 and 15.83 per cent of farmers possessed high and low level of knowledge about drip irrigation system, respectively.

Hence, it could be concluded that great majority (81.66 %) of farmers possessed medium to high level of knowledge about drip irrigation system.

CONCLUSION

In light of the above findings, following conclusions can be drawn. Friends, self-experience and neighbours were found to be the most important sources of motivation in adopting drip irrigation. The farmers possessed medium level of knowledge about drip irrigation system with medium level of adoption of drip irrigation system.

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