INFORMATION PROCESSING BEHAVIOUR OF SUGARCANE GROWERS

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Abstract

An agricultural information system is a system in which agricultural information is generated, transformed, consolidated and feedback received in such a manner that these processes function synergistically to understand knowledge utilization by agricultural producers. Generation of knowledge of information is not an end in itself but rather an indispensable means whereby the elements of the scientific research system are interconnected through the communication process to enable to work as a system. The study was conducted in cuddalore district of Tamil Nadu. sixty farmers involved in the generation, dissemination and utilisation of sugar cane technologies formed the sample for the study. Appropriate statistical tools were used to measure the variables. Information management behaviour referred to the aggregate of information acquisition, information processing and information farmers on sugarcane technologies. The result showed that farmers regularly utilized sources were neighbour/ fellow farmers (60.00 per cent) and discussed with family members (56.67 per cent), friends and relatives (53.33 per cent) and field men of sugar factory (51.67 per cent) for acquiring information respectively. Neighbours and fellow members were regularly used sources for information acquisition.

KEYWORDS: information, information acquisition, information processing behavior, Sugarcane Growers and Impersonal - cosmopolite channels.

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INTRODUCTION

An agricultural information system is a system in which agricultural information is generated, transformed, consolidated and feedback received in such a manner that these processes function synergistically to understand knowledge utilization by agricultural producers.

Generation of knowledge of information is not an end in itself but rather an indispensable means whereby the elements of the scientific research system are interconnected through the communication process to enable to work as a system. Kishore (1986) identified three systems of agricultural development process viz., agricultural research system-responsible for generating and evolving new agricultural technology/innovation, the extension system – responsible for transfer of technology to their users and to bring back the problems to the research system (feedback) and the client system (farmers) - the ultimate users of new knowledge and technology. Since the strength of the system's chain is decided by its weakest link, information management becomes almost important in each system so that it can plan intelligently for the future. If the information is not managed properly, timely and systematically by the researchers and agricultural workers, it may become absolute and sometimes may not reach the intended audience at all and consequently reflects on poor information management behaviour of different personnel manning in different systems. The best way to view information management behaviour is to treat it as an aspect of human behaviour in general, which yields the highest information satisfaction. So, over the years there has been a change in the understanding of the use of information management behaviour. Hence, the paper to assess the information management behaviour of sugarcane growers.

MATERIALS AND METHODS

The study was conducted in cuddalore district of Tamil Nadu. sixty farmers involved in the generation, dissemination and utilisation of sugar cane technologies formed the sample for the study. Appropriate statistical tools were used to measure the variables. Information management behaviour referred to the aggregate of information acquisition, information processing and information farmers on sugarcane technologies. In this study measurement of IMB of researchers was done by the index developed by Ambastha (1978) with slight modification and adopted by Prabha (1994). information acquisition referred to all such activities performed by an individual for acquiring scientific and technical information. Accordingly, information acquisition in this study referred to all the activities performed by a respondent for the acquisition of information in sugarcane technologies. The information acquisition behaviour was measured as the regularity of contact by the respondents with the use of different channels.

The responses were obtained on a four oint continuum as given below. The scores obtained on various information acquisition channels were added to get the total score of the respondents on this variable. Information processing behavior deals with evaluation of information received, that is the analysis, synthesis or deciding, treatment of information that is to prepare with short concrete and familiar words and storage of information that is noting, memorizing and recording. Accordingly information processing behavior referred in this study is the sum of all activities performed by the by respondent for evaluation, treatment and storage of the scientific and technical information on sugarcane technologies received by them. The inform Processing behaviourwas measured as the regularity of the respondents with the use of different items. Dissemination of information to subordinates and farmers and transmission of farm problems to higher officials or researchers. In this study information dissemination behaviour referred to all the activities performed by the respondents for disseminating of scientific and technical information on sugarcane technologies Information dissemination behaviour was measured as the regularity in the extent of use of individual, group and mass contact methods. The scores obtained on various information dissemination methods were added to get the total score of respondents on this variable. The respondents were classified into three categories based on cumulative frequency method.

FINDINGS AND DISCUSSION

I. Information acquisition behavior

Personal-cosmopolite channels

If you ar Various personal-cosmopolite channels used by the farmers for information acquisition are presented in I. The data in Table 1 reveals that cane development officers were found to be regularly contacted by majority (50.00 per cent) of the farmers for information acquisition, followed by progressive farmers (33.33 per cent) and chief cane development officer (30.00 per cent). Assistant director of agriculture was never consulted by 46.67 per cent of the farmers for information acquisition.

The findings revealed that the most commonly used sources for information acquisition by the farmers were cane development officers and progressive farmers among personal cosmopolite channels. This might be due to more accessibility and frequent contacts made by them. This finding is in line with the findings of Nanjaiyan(1985).

Personal - localite channels

The data collected on information acquisition behaviour through personal-localite channels are presented in Table 2.

It could be noticed from the Table 2 that, farmers regularly utilized neighbour/ fellow farmers (60.00 per cent) and discussed with family members (56.67 per cent), friends and relatives (53.33 per cent) and field men of sugar factory (51.67 per cent) for acquiring information respectively. Neighbours and fellow members were regularly used sources for information acquisition. This might be due to the close proximity and frequent interaction.

I. Information acquisition through personal – cosmopolite channels by the farmers

Sl.No.	Personal – cosmopolite channels	Regularity of contact							
		Regularly		Occasionally		Rarely		Never	
		No.	per cent	No.	per cent	No.	per cent	No.	per cent
1.	Officials of department of agriculture								
	a. Discussion with assistant director of agriculture	8	13.33	16	26.67	8	13.33	28	46.67
	b. Discussion with deputy director of agriculture	3	5.00	6	10.00	15	25.00	36	60.00
	c. Scientists from other research stations	18	30.00	20	33.33	10	16.67	12	20.00
2.	Officials of sugar factory								
	a. Plant manager	4	6.67	11	18.33	12	20.00	33	55.00
	b. Chief cane development officer	18	30.00	24	40.00	18	30.00	-	-
	c. Cane development officers	30	50.00	28	46.67	2	3.33	-	-
3.	Progressive farmers	20	33.33	28	46.67	12	20.00	-	-
4.	Representatives of private input agencies	4	6.67	10	16.67	21	35.00	25	41.66

Impersonal - cosmopolite channels

The data collected on information acquisition by farmers through impersonal-cosmopolite channels are presented in Table 3. It is evident from the data un Table 3 that viewing farm telecasts (33.33 per cent) followed by listening to farm broadcast (26.67 per cent) and reading information materials (21.67 per cent) were the regularly utilized sources by the farmers for information acquisition. The farmers occasionally used information kiosks (58.33 per cent) for acquiring information. Farm telecast and farm broadcast were the most utilized

impersonal-cosmopolite sources by the farmers for acquisition of information. This might be due to greater degree of credibility attached to the farm telecast and farm broadcast sources.

II. Information acquisition through personal – localite channels by the farmers

Sl.No.	Personal – localite channels	Regularity of contact							
		Regularly		Occasionally		Rarely		Never	
		No.	per cent	No.	per cent	No.	per cent	No.	per cent
1.	Discussion with family members	34	56.67	17	28.33	9	15.00	-	-
2.	Friends and relatives	32	53.33	16	26.67	12	20.00	-	-
3.	Neighbours / fellow farmers	36	60.00	24	40.00	-	-	-	-
4.	Progressive farmers	16	26.67	23	38.33	21	35.00	-	-
5.	Field men of sugar factory	31	51.67	29	48.33	-	-	-	-
6.	Private input dealers	15	25.00	18	30.00	22	36.67	5	8.33

III. Information acquisition through impersonal – cosmopolite channels by the farmers

Sl.No.	Impersonal – cosmopolite channels	Regularity of contact							
		Regularly		Occasionally		Rarely		Never	
		No.	per cent	No.	per cent	No.	per cent	No.	per cent
1.	Farm broadcasts	16	26.61	10	16.67	12	20.00	22	36.66
2.	Farm telecasts	20	33.33	15	25.00	25	41.67	-	-
3.	Information material	13	21.62	20	33.33	23	38.33	4	6.67
4.	Agriculture news articles in newspapers	9	15.00	14	23.13	24	40.00	13	21.67
5.	Agriculture films / slides	-	-	-	-	3	5.00	57	95.00
6.	Farm magazines	10	16.67	19	31.67	9	15.00	22	36.66
7.	Farmers day	10	16.67	18	30.00	12	20.00	20	33.33
8.	Agricultural exhibitions	8	13.33	17	28.33	19	31.67	16	26.67
9.	Tours and field trips	7	11.66	13	21.67	10	16.67	30	50.00
10.	Information kiosks	5	8.33	35	58.33	12	20.00	8	13.34

II. Information processing behaviour

Information evaluation

The data on information evaluation methods used by the farmers are presented in Table 4. It could be observed from the IV that weighing in the light of past experience (46.67 per cent) and considering economic feasibility (40.00 per cent) were the regularly considered methods for evaluation of information.

Weighing in the light of past experience and considering the economic feasibility were widely considered aspects for processing of information by majority of the farmers. It is quite natural, that farmers always considered their past experience and the feasibility of technology while accepting the innovations.

From V, it is clear, that a majority of the farmers were found to treat the information regularly by cross checking with their past experience (58.33 per cent), discussing with friends and relatives (53.33 per cent) and consulting the sugar factory extension workers (40.00 per cent).The most frequently used methods for information treatment were cross checking with past experience followed by discussing with friends and relatives and consulting with sugar factory extensionists. The finding on discussion with friends and relatives is consistent with the findings of Vijayaraghavan and Subramanyan (1980). Treating the information by consulting the friends and relatives is in conformity with the findings of Lionberger and Chang (1970).

Information storage

The data on information storage by the farmers while processing the information are presented in VI. It could be observed from Table 29 that, a majority of the respondents stored the information regularly by memorizing (50.00per cent), followed by preserving the leaflets, booklets etc, (31.67 per cent) and taking hints in note books (26.67 per cent). It is interesting to note that none of the respondents utilized audio/video cassettes for storing the information. Memorizing was the most used method of preservation of information by the farmers. This finding is in accordance with the findings of Singh and Ambastha (1974), Ghanorkar and Khonde (1979) and Reddy (1984).

IV. Evaluation of information by the farmers

Sl.No.	Evaluation methods	Regularity of contact							
		Regularly		Occasionally		Rarely		Never	
		No.	per cent	No.	per cent	No.	per cent	No.	per cent
1.	Weighing in the light of past experience	28	46.67	22	36.67	10	16.66	-	-
2.	Considering economic feasibility	24	40.00	22	36.67	14	23.33	-	-
3.	Advantage of the message	20	33.33	16	26.67	12	20.00	12	20.00
4.	Degree of complexity	13	21.67	14	23.33	15	25.00	18	30.00
5.	Degree of compatibility	30	16.67	15	25.00	18	30.00	17	28.33
6.	Technological feasibility	8	13.33	15	25.00	19	31.67	18	30.00
7.	Degree of trialability	12	20.00	20	33.33	13	21.37	15	25.00

V. Treatment of information by the farmers

Sl.No.	Methods of Treatment	Regularity of contact							
		Regularly		Occasionally		Rarely		Never	
		No.	per cent	No.	per cent	No.	per cent	No.	per cent
1.	Consulting scientists	15	25.00	17	28.33	10	16.67	18	30.00
2.	Consulting the sugar factory extension workers	24	40.00	28	46.67	8	13.33	-	-
3.	Consulting the extension staff of department of agriculture	17	28.33	19	31.67	20	33.33	04	6.67
4.	Discussing with progressive farmers	15	25.00	23	38.33	16	26.67	6	10.00
5.	Discussing with friends and relatives	32	53.33	19	31.62	9	15.00	-	-
6.	Conducting demonstrations	16	26.67	15	25.00	12	20.00	17	28.33
7.	Cross checking with past experience	35	58.33	25	41.67	-	-	-	-

Information dissemination behaviour

The data collected on information dissemination behaviour of farmers are presented in Table 7. With regard to individual contact methods, the data in Table 7 shows that majority of the respondents regularly visited neighbouring farm and home (40.00 per cent) followed by discussion with progressive farmers (30.00 per cent) to disseminate the information on sugarcane technologies .With respect to group contact methods, the regularly utilized sources were group discussions (25.00 per cent) followed by demonstration (15.00 per cent), whereas 30.00 per cent

of the respondents occasionally used the group discussion.In case of mass contact methods, it is evident from the table that agricultural exhibition (36.67 per cent) and farmers' day (25.00 per cent) were utilized regularly. None of the respondents participated in slide shows for information dissemination.

VI. Storage of information by the farmers

Sl.No.	Methods of storage	Regularity of contact							
		Regularly		Occasionally		Rarely		Never	
		No.	per cent	No.	per cent	No.	per cent	No.	per cent
1.	Taking hints in a note book and preserve	16	26.67	20	33.33	12	20.00	12	20.00
2.	By preserving information materials like booklets / leaf lets etc.	19	31.67	15	25.00	10	16.67	16	26.67
3.	By memorizing	30	50.00	23	38.33	7	11.67	-	-
4.	By recording in audio / video cassettes	-	-	-	-	-	-	60	100.00
5.	By Xeroxing and preserving	-	-	-	-	4	6.67	56	93.33

VII. Information dissemination behavior of farmers

Sl. No.	Methods	Regularity of contact							
		Regularly		Occasionally		Rarely		Never	
		No.	per cent	No.	per cent	No.	per cent	No.	per cent
I	**Individual contact**								
1.	Farm and home visits	24	40.00	26	43.33	10	16.67	-	-
2.	Telephone calls	4	6.67	6	10.00	2	3.33	42	80.00
3.	Discussion with progressive farmers	18	30.00	22	36.67	12	20.00	8	13.33
II	**Group contact**								
1.	Participating in demonstration trials	9	15.00	12	20.00	15	25.00	24	40.00
2.	Group discussions	15	25.00	18	30.00	13	21.67	14	23.33
3.	Group meetings	8	13.33	10	16.67	8	13.33	34	56.67
4.	Farmers training programmes	10	16.67	8	13.33	10	16.67	32	53.33
5.	Field trips / study tours	7	11.67	8	13.33	10	16.67	35	58.33
6.	Field visits	5	8.33	7	11.67	14	23.33	34	56.67
III	**Mass contact**								
1.	Distribution of information materials to other farmers	13	21.67	12	20.00	10	13.67	25	41.16

2	Farmers day	15	25.00	12	20.00	8	13.33	25	41.67
3.	Raido programmes	2	3.33	4	6.67	7	11.67	47	78.33
4.	TV programmes	-	-	2	3.33	3	5.00	55	91.67
5.	Activities of voluntary organisations	-	-	-	-	20	33.33	40	66.67
6.	Agricultural exhibition	22	36.66	10	16.67	28	46.67	-	-
7.	Writing to newspapers	2	3.33	4	6.67	4	6.67	50	33.33
8.	Attending to zonal meetings	8	13.33	10	16.67	12	20.00	30	50.00
9.	Attending to slide / film shows	-	-	-	-	-	-	60	100.00

Farm and home visits and discussion with progressive farmers were the two individual contact methods regularly used by the farmers for providing feedback to researchers and extension workers and for passing information to other farmers.

Group discussion and participation in demonstrations were the group contact methods extensively used by the farmers for information dissemination. Agricultural exhibitions and farmers day were the regularly used mass contact methods for information dissemination to researchers, extension workers and other farmers. This finding is in line with findings of Sambi Reddy (1997).

SUMMARY AND CONCLUSION

Cane development officer was the regularly used channels among the farmers for information acquisition. It therefore, necessitates that cane development officer and neighbours should be fed with the latest farm innovations on sugarcane technologies who can be a great asset for the quick and effective dissemination. Similarly farm telecast programmes must be prepared in collaboration with the scientists involved in sugarcane research and extension personnel in simple language suitable to the agro-climatic, socio-psychological and day-to-day requirements of the sugarcane farmers. With regard to storage of information, memorizing ranked first followed by preserving leaflets and booklets etc. It is therefore suggested that still the farmers depended mostly on their memory. Technology has become so complex that it is difficult to remember every bit of information and there is every possibility of committing mistakes in its utilization. Therefore farmers should be encouraged not to solely depend on

memory, but to read the written information materials and to preserve them in audio and video cassettes.

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