Research Paper

Volume : 4 | Issue : 4 | April 2015 • ISSN No 2277 - 8179

Different Media-Mix Used for Knowledge Gain and Retention of Simple Agricultural Technologies

Agricultural Science

KEYWORDS : Media-Mix, Knowledge Gain, Retention

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ABSTRACT

Effective communication is the basis of success of any extension programme. Extension agents have much number of methods available for exchanging information with farmers, research workers and other members of the agricultural system. Different extension teaching methods used, either as single method or combination of methods, the effectiveness to different extension teaching methods vary. So the study was conducted to know which media-mix treatment is effective in communicating the simple cotton production technology in nine villages from Parbhani tahsil of Parbhani district of the Maharashtra State. Nine different media-mix treatments were used in this experiment. It was observed that the lecture + method demonstration + group discussion was the most effective media- mix treatment in terms of how-to knowledge gain as well as retention by the farmers.

INTRODUCTION

The success of extension worker depends upon the selection and use of right extension teaching method at the right time and in the right way. Earlier studies showed that when different extension teaching methods used, either as single method or combination of methods, the effectiveness to different extension teaching methods vary (Gajare et al., 1991 and Nagaratna Biradar and Sundaraswamy, 1998).

Cotton is one of the most important commercial crops which plays a vital role in the national economy. Marathwada Agricultural University has been conducting research production trials of different crops including cotton. In recent years university has investigated and recommended more productive technology. Agricultural department of State Govt. has been concentrating upon increasing production and productivity of cotton through dissemination of the technology. Both these systems are using various media, media-mix for communicating the message to farming community in the region. This investigation was carried out with following objective.

To know which media-mix treatment is effective in communicating the simple cotton production technology.

METHODOLOGY

The study was conducted in nine village from Parbhani tahsil of Parbhani district of the Maharashtra State. 'Importance of simple production technology for maximizing cotton production' was the massage selected for the study. The media-mix treatments namely Lecture + Method demonstration, Lecture + folder, lecture + group discussion, method demonstration + folder, method demonstration + group discussion, folder + group discussion, lecture + method demonstration + folder, lecture + method demonstration + group discussion, lecture + folder + group discussion were used in this experiment. Nine sample groups each of 30 respondents, from nine villages were exposed to selected nine media- mix treatments separately. The 'before and after' experimental design was used for the study.

FINDINGS

Gain in 'how-to' knowledge

Gain in 'how to' knowledge level was tested immediately after exposing the respondents to the selected media-mix treatment and the differences in the mean knowledge gain scores before and after exposure were compared by using paired 't' test. The findings in this regard are presented in Table 1.

It is observed from Table 1 that there was significant difference in the mean knowledge score before treatment and immediately after treatment in all the media-mix treatments that is lecture + method demonstration ('t' value = 39.07), lecture + folder ('t' value=27.89), Lecture + group discussion ('t' value = 26.78), method demonstration + folder ('t' value = 24.60), method demonstration + group discussion (t' value = 31.69), folder + group discussion ('t' value = 22.06), lecture + method demonstration + folder ('t' value = 30.03), lecture + method demonstration + group discussion ('t' value = 28.59) and lecture + folder + group discussion ('t' value =27.60).

The table 1 further revealed that the media-mix treatment i.e. lecture + method demonstration + group discussion was most effective treatment in term of how-to gain knowledge followed by lecture + method demonstration + folder and method demonstration + group discussion in terms of how-to gain in knowledge about simple cotton production technology. Both lecture + folder and folder + group discussion was found least effective media-mix treatments.

Retention of How-to knowledge

The amount of knowledge retained by the respondents 15 days after exposure to the respective media mix treatment was known and the difference between the mean knowledge gain scores immediately after exposure and mean knowledge retention scores 15 days after exposure was compared by using paired 't' test. The result are presented in table 2.

It is clear from table 2 that there was significant difference between the mean knowledge gained immediately after exposure and retained 15 days after exposure in all the selected media-mix treatments namely lecture + method demonstration ('t' value= 35.86), lecture +folder ('t' value =21.11), lecture + group discussion ('t' value = 22.13) method demonstration + folder ('t' value=21.85), method demonstration + group discussion ('t' value=30.94), folder + group discussion ('t' value=18.73), lecture + method demonstration + folder ('t' value=26.09), lecture + method demonstration + group discussion ('t' value28.79) and lecture + folder + group discussion ('t' value= 26.47).

The perusal of Table 2 further showed that the media mix treatment i.e. lecture + method demonstration + group discussion emerged as the most effective media-mix treatment in terms of retention of how-to knowledge about simple cotton production technology. It was followed by treatments lecture + method demonstration + folder and method demonstration + group discussion. The receiver would achieve more understanding of message better if more senses are involved. This will help the learn-

ers to acquire more knowledge as well as retention will be better if message is well interpreted by the receiver. Hence media-mix will be used who leave behind long-term impression on receivers mind.

CONCLUSION

The research findings revealed that among the all nine media-mix treatments used, the lecture + method demonstration + group discussion was the most effective media- mix treatment in terms of how-to knowledge gain as well as retention by the farmers. That means the study brings to focus that the selection and combination of media or media-mix play an important role in communicating the message to the rural farmers.

Table 1. Effectiveness of different media mix in terms of 'how-to' knowledge gain by the respondents

Sr. No.	Media mix treatments	Mean 'how to' knowledge score		Mean 'how to' knowledge gain	Percentage of 'how to' knowledge	't' value	Rank
		BT	IAT				
1	Lecture + Method demonstration	3.16	8.49	5.33	53.33	39.07**	V
2	Lecture + folder	3.03	8.16	5.13	51.30	27.89**	VIII
3	Lecture + group discussion	3.26	8.46	5.20	52.00	26.78**	VII
4	Method demonstration + folder	3.33	8.59	5.26	52.60	24.60**	VI
5	Method demonstration + group discussion	3.33	9.39	6.06	60.6	31.69**	III
6	Folder + group discussion	3.20	8.33	5.13	51.30	22.06	VIII
7	Lecture + method demonstration + Folder	3.50	9.76	6.26	62.60	30.03**	II
8	Lecture + Method demonstration + group discussion	3.46	9.79	6.33	63.30	28.59**	I
9	Lecture + folder + group discussion	3.26	8.92	5.66	56.60	27.60**	IV

BT – Before treatment
** Significant at 0.01 level of probability

IAT – Immediately after treatment

Table 2: Effectiveness and different media mix term of retention of 'how -to knowledge' by the respondents

Sr. No.	Media mix treatments	Mean 'how to' knowledge scores					Mean 'how to' knowledge retention	Percentage of 'how to' knowledge retained	't' value	Rank
		BT	IAT	Knowledge gain	15 DAT	LOK				
1	Lecture + method demonstration	3.16	8.49	5.33	7.82	0.67	4.74	47.80	31.59**	V
2	Lecture + folder	3.03	8.16	5.13	7.13	0.43	4.1	41.00	21.51**	VIII
3	Lecture + group discussion	3.26	8.46	5.20	7.82	0.24	4.66	46.80	22.14**	VI
4	Method demonstration + Folder	3.33	8.59	5.26	8.09	0.30	4.74	47.80	23.83**	V
5	Method demonstration + group discussion	3.33	9.39	6.06	9.08	0.33	5.73	57.30	30.04**	III
6	Folder + group discussion	3.20	8.33	5.13	7.68	0.45	4.73	47.30	18.71**	VII
7	Lecture + method demonstration + Folder	3.50	9.76	6.26	9.5	0.26	6.00	60.00	30.39**	II
8	Lecture + method demonstration + group discussion	3.46	9.79	6.33	9.59	0.20	6.33	63.30	28.28**	I
9	Lecture + folder + group discussion	3.26	8.92	5.66	8.33	0.60	5.06	50.60	26.67**	IV

BT – Before Treatment
15 DAT – 15 days after treatment ** Significant at 0.01 level of probability

IAT – Immediately after treatment
LOK – loss of knowledge

REFERENCE

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