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Research Article

EMPOWERMENT OF RURAL WOMEN BY DEVELOPMENT OF MEDIA PACKAGE AS A COMPACT DISC (CD) ON VEGETABLE CULTIVATION

RANI SANTOSH*AND VARMA S.K.

Department of Extension Education and Communication Management, College of Home Science, CCS Haryana Agricultural University, Hisar, Haryana, India
*Corresponding Author: Email-makhanmajoka@gmail.com

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Abstract- The present study was conducted in Haryana state in 2014.15. Fifty rural women each from Bhimnagar, Pali, Milkpur and Bawanikhera villages of Hisar and Bhiwani districts, respectively were selected purposively thus comprising of total sample of 200 respondents. To find out the need of the rural women, a questioner was developed and critical messages and sub-messages were prepared. Rankings were assigned on the basis of weighted mean scores. Messages having top three ranks were finally selected for media preparation after consultation with Vegetable Science and Extension Education and Communication Management Department experts. Finally selected messages were tomato, okra and cucurbits crops cultivation practices for which media was developed. Standard procedure for development of media was followed.

Audio quality and visual quality of CD of various messages related to vegetables cultivation practices were perceived to be high. Presentation of various messages related to vegetables cultivation practices had been well organized and presented well in the CD. Results revealed that the quality of content coverage and its relevance and appropriateness to the subject was quite high. The clarity of text and size of text is appropriate and it was clearly visible

Keywords- Media package, CD, Rural Women, Vegetables Cultivation, Effectiveness, Empowerment.

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Introduction

The importance of vegetable production is enormous starting from its great role in human diet to earning foreign exchange reserve for the country. Vegetables make up a major portion of the diet of humans in many parts of the world and play a significant role in human nutrition, especially as sources of phyto-nutriceuticals: vitamins (A, B_1, B_6, B_9, C, and E), minerals, dietary fiber and phyto-chemicals [1]. Vegetable alone contribute 10.61% of the total value of output from agriculture and are increase trends over the years [2].

In vegetable cultivation, women were involved in manure carrying & dispersing, seedling, planting and weeding[3]. In general, women farmers participate in all the activities of vegetable production. The findings of the present study are in conformity with that of [4].Majority of labour intensive activities related to vegetable cultivation were performed by women except ploughing, plant protection measures and marketing. Land preparation, hoeing, weeding, harvesting and post harvesting were done by women and hired labour [5].

CD-Rom with its unique quality of audio-visual recording, ease in handling and instant feedback serves as an effective tool in rural extension work, it can be used effectively to assure two way interactions in a variety of context. CD-Rom possesses several advantages over other media. Finally, the activities are also participation during the CD-Rom playback session every one that is involved in the process has the opportunity to make individuals contributors. Video compact disc was effective for educating the farm women because the message was simple, familiar, understandable and real [6].Developed interactive CD was good and could be used by field functionaries, extension workers and all those agencies/ organizations working in rural area for transfer of scientific information to rural women and also reported that respondents have perceived and comprehended the messages of video/CD programme very well [7]. The reason behind was that the messages were clearly understood by them.

Therefore, tapping and utilization of media for transferring the newly generated technologies regarding vegetable cultivation among the Indian farm women is crucial and significant. This is mainly due to the fact that the vast majority of our farm women belong to remote and rural areas where facilities could not be arranged for sustainable individual or group approaches of technology transfer as it could be highly expensive and difficult in managing information infrastructure, therefore responsibilities and intervention of media in rural transformation is becoming more imperative and challenging. So, there is an urgent need to develop the media on improved vegetable cultivation messages to strengthen the technical knows how therefore, the present study was planned to develop the relevant media on vegetable production so that rural women can be sensitized for self reliance with the following specific objectives:-

1. To assess the existing practices of vegetables cultivation
2. To develop, standardize and effectiveness of media on need based messages of vegetables cultivation practices.

Materials and Methods

This study was conducted in many phases in Hisar and Bhiwani districts purposively from South-Western zone of Haryana in 2014-15. One block from each district *viz.,* Hansi block from Hisar district and Bawanikhera block from Bhiwani district were selected randomly. From the selected blocks two villages from each block, *i.e.,* Pali and Bhimnagar villages from Hansi block, Milkpur and Bawanikhera village from Bawanikhera block were selected randomly. Fifty rural women who involved in vegetable cultivation practices from each village were

selected purposively, thus comprising a sample of 200 women. To find out the need of the rural women, a questioner was developed and critical messages and sub-messages were prepared. Rankings were assigned on the basis of weighted mean scores. Messages having top three ranks were finally selected for media preparation after consultation with Vegetable Science and Extension Education and Communication Management Department experts.

Media package in the form of compact disc for rural women was prepared on selected messages in *Hindi* entitled *"Sabgi Utpadananhetu Takniki Jankari"*. Standard procedures for preparation of media were adopted. Involvement of rural women clientele in message designing and media production is of paramount importance in media production so that the message actually communicates. Media package involve designing, testing and refining the message professionally before their widespread use. If we want our clients or target audience to pay attention, understand, accept and act upon the communication messages, it is imperative that we understand the target audience and make relevant messages, professionally test and modifying them. Media effectiveness can be enhanced only when the messages are in tune with the need and interest of target audience. To keep in mind this perspective media package on vegetable cultivation practices was developed in the form of a Compact Disc (CD). To increase its understandability related photographs and effective illustrations were also included. Following steps were used for preparation of Compact Disc (CD):

- Planning
- Scripting
- Recording
- Editing and mixing
- Time estimation
- Review and fine tuning

Involvement of both the parties, *i.e*., Vegetable Science experts and rural women was ensured for all the stages of media production so as to meet the requirement of target group. A detail of each step is explained in results and discussion. The effectiveness of the prepared media package was assessed by showing them to 30 judges comprising of Horticulture and Vegetable experts, Home Scientists and field functionaries. Assessment of effectiveness of CD was done on selected parameters [8], *i.e.,* Audio literacy, visual literacy, presentation of message, content importance and suitability, text and the overall performance of the CD. All components had subcomponents which were scored on a three-point rating scale as high, moderate and low having scores of 3, 2, and 1, respectively. Weighted mean scores of all the components were calculated.

Results and Discussion

Based on the need of rural women Compact Disc (CD) for rural women was developed in *Hindi* entitled *"Sabgi Utpadananhetu Takniki Jankari"*. Various steps involved in preparation of CD on vegetables cultivation practices are –

1. Planning

If a CD *i.e.* its images and sound are to fulfill the required communication purpose, it needs to be organized properly to convey the meaning. Therefore, it was planned to prepare CD for rural women with an objective to give them necessary critical information on vegetables cultivation practices.

2. Scripting

While preparing a script various stages were involved. These were:

a) Research

Keeping the objectives of CD in mind, information regarding the subject *i.e.* vegetables cultivation practices messages were collected with the help of concerned literature, departments experts Vegetable Science from CCS HAU, Hisar. The messages were prepared according to the need of the rural women.

b) Treatment

Treatment of the subject is an important part of effective communication process and for this very purpose, besides straight narration with visuals, shots of actual working and activities were taken. The language of the script was purposively in *Hindi* so as to facilitate learning by the rural women.

c) Outline

After research and treatment decision, a rough outline of details of the CD was worked out *i.e.,* three vegetables cultivation practices messages, *viz.,* scientific cultivation of tomato, okra and cucurbits crops were included based on need of the rural women and expert's consensus.

d) Sequencing

Once the outline was prepared, the sequencing of the subject matter was done to make the CD coherent, informative and also interesting.

e) Special effects

To convey the idea effectively, special effects like computerized write-up, fade in and fade out, long shot, medium shot, close-up and extreme close-up shots were decided upon and written in the script.

f) Story board

After writing, to help the camera man and special effects, story boards, where in each shot indicated by drawing, were prepared.

g) Review

After complete writing of the CD script, it was reviewed by the experts and projectionist of the department of Extension Education and Communication Management, COHS, CCS HAU, Hisar, to make improvement.

3. Recording

Recording is the stage where all visual and oral elements described in the script are collected. Before starting the recording, survey was done to select the venue for taking shots as well as permission of concerned personnel. Time was taken from the rural women of Bhimnagar, Pali, Milkpur and Bawanikhera villages of Hisar and Bhiwani districts, respectively. Recording for the CD was done in department of Vegetable Science Farm of CCS HAU, Hisar, *Sabji Mandi*, multimedia lab, EECM, CCS HAU, Hisar, with the help of projectionist, cameraman and Vegetable Science department experts. The visual portions concerning scientific cultivation practices of tomato, okra and cucurbits crop as per convenience and availability of shots.

4. Editing and mixing

CD editing is a highly creative process; it is not a mechanical process of just joining the different scenes. Sequence of the visual scenes was arranged as per the script. Editing and mixing, to make the CD educative as well as interesting was done at the computerized editing and mixing in Extension Education and Communication Management Department, COHS, CCS HAU, Hisar. Commentary as per script was dubbed by Ms. Sarika expert from *Doordarshan,* Hisar so as to match with the visual scenes. Light background music was also dubbed to give pleasant hearing to the audience.

5. Time estimation

Preparation of instructional CD is incomplete without estimation of time. It is equally important as the previous steps. The prepared CD is of 30 minutes duration giving approximately 10 minutes to each message. Names, acknowledgements were highlighted in the beginning of the script visual.

6. Review and fine tuning

Based on the results from the testing process, the CD was fine tuned by incorporating the feedback.

Effectiveness of Compact Disc (CD)

Audio quality of various messages related to vegetables cultivation practices CD perceived by judges

The audio quality of CD was assessed through 10 criteria given in [Table-1]. It is clear from the table that audio quality in terms of voice quality, pitch of voice,

interest orientation, language, comprehension, accuracy, sequence, understand ability, obstruction, music, was found to be high by most of the judges. None of the judge evaluated low on any aspect of audio quality. Overall mean score was highest and varied from 2.66 to 2.67. Effectiveness of CD in terms of audio quality, video quality, presentation of message, content importance and suitability and text was rated as high also reported by [9].

Table-1 *Audio quality of various messages related to vegetables cultivation practices CD perceived by judges* N=30

Attributes of audio quality	Weighted Mean Score		
	Messages		
	M_1	M_2	M_3
Voice quality	2.66	2.66	2.66
Pitch of voice	2.43	2.43	2.43
Interest orientation	2.63	2.63	2.63
Language	2.70	2.70	2.68
Comprehension	2.65	2.65	2.67
Accuracy	2.75	2.78	2.74
Sequence	2.80	2.80	2.81
Understandability	2.78	2.78	2.78
Obstructions (back ground)	2.60	2.60	2.60
Music commentary	2.70	2.70	2.68
Overall mean score	2.67	2.67	2.66

Maximum mean score is 3.00

Low: 1 – 1.66 Medium: 1.67 – 2.32 High: 2.33 – 3.00

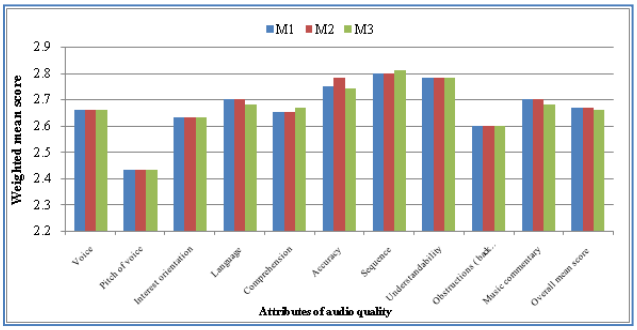

Fig-1 Audio quality of various messages related to vegetables cultivation practices CD perceived by judges

Visual quality of various messages related to vegetables cultivation practices CD perceived by judges

[Table-2] illustrates the visual quality testing in terms of eleven parameters as evaluated by the judges. It is evident from the Table that visual quality in terms of clarity of pictures, size of illustration, perception, interest orientation, attention catching, self explanation, sequence, general set up, colour, tuning with commentary, and impressiveness was found to be high in the opinion of most of the judges. Overall mean score for visual quality for various messages related to vegetables cultivation practices CD was found in range of 2.73 to 2.74. Similar results were reported by [10] conducted a study of development and effectiveness of video cassette on women operated farm machinery for cotton cultivation and reported that the quality parameters of video film prepared have been perceived quite high by a large majority of respondents. Similar findings were reported by [11] indicated the interactive CD-ROM was found to be effective for all the selected parameters. The quality parameters of CD prepared on fruits and vegetables preservation were prepared quite high by a large majority of the respondents.

Presentation of various messages related to vegetables cultivation practices CD perceived by judges

It is clear from the [Table-3] that most of the judges evaluated the CD high in terms of speed of presentation, simplicity, style of presentation, explaining ideas and message treatment for all the messages. None of the judge perceived any of the parameters low in CD. The overall mean score showed that M_1 (tomato), M_2 (okra) and M_3 (cucurbits cultivation practices) were perceived to be high for presentation (2.69) as against a maximum weighted mean score of 3.00 indicating thereby that desired message on vegetables cultivation practices had been well organized and presented well in the CD.

Table-2 *Visual quality of various messages related to vegetables cultivation practices CD perceived by judges N=30*

Attributes of visual quality	Weighted Mean Score		
	Messages		
	M_1	M_2	M_3
Clarity of pictures	2.80	2.80	2.80
Size of illustration	2.76	2.76	2.74
Perception	2.70	2.70	2.72
Interest orientation	2.75	2.74	2.73
Attention catching	2.70	2.70	2.69
Self explanatory	2.65	2.65	2.65
Sequence	2.77	2.77	2.75
General set up	2.78	2.77	2.77
Colour	2.80	2.80	2.80
Tuning with commentary	2.77	2.77	2.77
Impressiveness	2.70	2.71	2.70
Overall mean score	2.74	2.74	2.73

Maximum mean score is 3.00

Low: 1 – 1.66 Medium: 1.67 – 2.32 High: 2.33 – 3.00

Table-3 *Presentation of various messages related to vegetables cultivation practices CD perceived by judges N=30*

Attributes of presentation	Weighted Mean Score		
	Messages		
	M_1	M_2	M_3
Speed of presentation	2.72	2.71	2.71
Simplicity	2.71	2.71	2.70
Style of presentation	2.73	2.74	2.73
Explaining idea	2.68	2.65	2.65
Message treatment	2.65	2.66	2.66
Overall mean score	2.69	2.69	2.69

Maximum mean score is 3.00

Low: 1 – 1.66 Medium: 1.67 – 2.32 High: 2.33 – 3.00

Content of various messages related to vegetables cultivation practices CD perceived by judges

[Table-4] reveals that content importance of CD was perceived high by most of the judges in terms of all the five attributes *i.e.,* informativeness, technical terms, coverage, relevancy and usefulness for all the three messages. The overall mean score of all the messages were also perceived to be high ranging from 2.72 to 2.76 indicating that the quality of content coverage and its relevance and appropriateness to the subject was quite high. Developed media package was effective to serve the purpose for which it was designed and was recommended for further multiplication and use for dissemination of information/ practices were also reported by [12].

Table-4 *Content of various messages related to vegetables cultivation practices CD perceived by judges N=30*

Attributes of content	Weighted Mean Score		
	Messages		
	M_1	M_2	M_3
Informativeness	2.80	2.78	2.75
Technical terms	2.75	2.75	2.70
Coverage	2.70	2.70	2.68
Relevancy	2.75	2.75	2.72
Usefulness	2.80	2.80	2.78
Overall mean score	2.76	2.75	2.72

Maximum mean score is 3.00

Low: 1 – 1.66 Medium: 1.67 – 2.32 High: 2.33 – 3.00

Text of various messages related to vegetables cultivation practices CD perceived by judges

The data presented in [Table-5] highlight that text given in CD was perceived to be high by most of the judges in terms of both the attributes clarity of text and size of text for all the three messages. The overall mean score of all the messages were also perceived to be high 2.74 indicating that the clarity of text and size of text is

appropriate and it was clearly visible. It was also indicated that video met the local requirements than broadcast on television [13]. Similar findings were reported by [14-18].

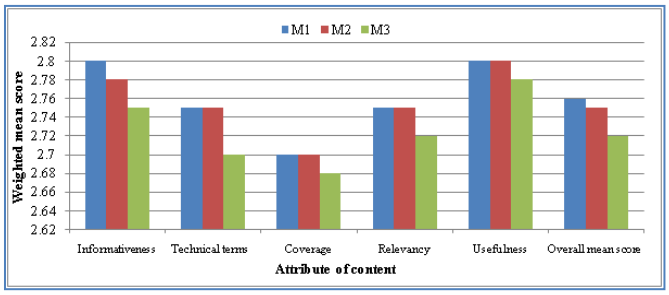

Fig-2 Content of various messages related to vegetables cultivation practices CD perceived by judges

Table-5 *Text of various messages related to vegetables cultivation practices CD perceived by judges N=30*

Attributes of text	Weighted Mean Score		
	Messages		
	M_1	M_2	M_3
Clarity of text	2.75	2.75	2.75
Size of text	2.73	2.73	2.73
Overall mean score	2.74	2.74	2.74

Maximum mean score is 3.00

Low: 1 – 1.66 Medium: 1.67 – 2.32 High: 2.33 – 3.00

Conclusion

On the basis of this study it may be concluded that development of compact disc (CD) on vegetables cultivation practices prepared for rural women which were found to be effective in all the parameters regarding effectiveness when it was assessed through judges.

Abbreviations:

CD- Compact Disc
ROM-Read Only Memory
M- Message
N- Number of Respondents
i.e.,-That is
EECM- Extension Education and Communication Management,
CCS HAU- Chaudhary Charan Singh Haryana Agricultural University

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Author Contributions Form

S. No.	Particulars	Percent contribution	
		Author 1	Author 2
1.	Conception/design of the work	50	50
2.	Acquisition of the data	70	30
3.	Data analysis and interpretation	60	40
4.	Drafting of manuscript	60	40
5.	Critical revision of the article	60	40
6.	Drafting of references	50	50
7.	Final approval of the version to be published	50	50

Conflict of Interest: None declared

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