

Gain in Knowledge of Rural Women Regarding Selected Vegetable Cultivation Practices through Media Package in Hisar district of Haryana

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ABSTRACT

The study was conducted in 2014-15 year having distinct methodology. Bhimnagar village was selected randomly from Hansi block of Hisar district of Haryana state. Fifty rural women who involved in vegetable cultivation practices were selected purposively. For assessing the need of the rural women, an inventory pertaining to critical messages and sub-messages was prepared. Messages having top three ranks and ten sub-messages from each selected messages got upper rank 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 CD for rural women and printed booklet for field functionaries was prepared on selected messages. Standard procedures for preparation of media were adopted. Prepared media package was administered and standardized by 30 judges including Vegetable Science, Horticulture, Extension Education and Communication Management departments and field functionaries etc. Media package was exposed to 30 rural women out of 50 women already selected village. The impact of media was assessed in terms of gain in knowledge of rural women. The study highlighted that Sufficient gain in knowledge regarding vegetables cultivation practices was recorded for each messages viz., tomato, okra and cucurbits cultivation practices. It may, therefore, be concluded that women succeeded in acquiring knowledge after exposing them to media package on vegetables cultivation practices.

Keywords: *Gain in knowledge; Rural women; Media package; Vegetables cultivation practices;*

India is largely a vegetarian society solely depending on vegetables for their nutritional requirement. After the green revolution, India achieved sufficient quantity in food supply for internal as well as for export but lacking behind in quality. Vegetable play a pivotal role in food and nutritional security of ever growing population of our country. Vegetables are particularly important as these render the stable food more palatable, and hence improve intake digestion and have a curative role. Vegetable alone contribute 10.61 per cent of the total value of output from agriculture and are increase trends over the years (CSO 2013). India is the second largest producer of vegetables next to china with 2.8 per cent of total cropped area and 15 per cent of the world's production under vegetables (Kumar et al. 2011).

According to National Horticulture Board (2014-15), India produced 162.89 metric tons of vegetable with 9.39 million hectare area. Area, rate of production, productivity and yield obtained of most of the vegetables is low in majority of vegetable growing states including Haryana due to lesser knowledge of vegetable production technology. Even at current level of production, farm produced value at Rs.7000 million is being waste every year due to little knowledge of production, harvesting, transportation and adequate storage facilities and other associated supported facilities. Though improved diet should have about 300g of vegetable per day per person but in India average per capita consumption of vegetable per day is reported to be less than 1/3th particularly among the rural people

which is due to little knowledge of production technology of vegetable, poor farm management and less knowledge of harvesting practices. There is huge gap between the scientific recommendation technology and adoption level of rural farm women. Moreover near about 70 per cent vegetables are grown in rural area and illiteracy rate are more in these area and also farmers and extension worker ratio are very high. Here exists a strong need for extension education and training for the growers also applies to the vegetable production technology. Women's contribution to national development is crucial. The process of involvement would be incomplete and lopsided unless women are involved in it. A country cannot progress until its women progress. In India, women constitute 48.2 per cent of the total population, bulk of which reside in rural areas (*Adalakha, 2011*). Therefore it is essential to evolve a pragmatic and realistic approach to women's development by communication through media. Women play an important role in vegetable production. Most of the operations in vegetable production like seed treatment, sowing of seed, nursery raising, transplanting, thinning, irrigation, weeding, gap filling, fertilizers application, harvesting, picking, packaging, loading, unloading even sometime marketing are also done by women. *Adhikari (2005)* reported that in vegetable cultivation, women were involved in manure carrying & dispersing, seedling, planting, weeding. However, men were involved in land preparation, harvesting and irrigation. The findings of the present study are in conformity with that of (*Devkota 2006*). Media in the modern world are a force to reckon with. No task in the world of today can be accomplished successfully and adequate without media support. Therefore, an active role of media in development of human beings at regional, national and international spheres has to be endured and fully acknowledged. More the media inputs and greater the media consumption by masses, increased will be the welfare of the nation and happiness and capacity building of farmers and farm women. The media is playing an important role in passing on meaningful information at faster rate to the large number of farm women in country. It has emerged as one of the powerful sources of seeking relevant scientific information by our farm women. Therefore tapping and utilization of media for transferring the newly generated technologies regarding vegetable cultivation among the Indian farm women is

crucial and significant. Electronic media plays a vital role to inform farmers and farm women in the situation of urgency and emergency. Farmers can be informed quickly and swiftly about crop production, protection and changing weather. Farmers can also get the appropriate advices of experts through these media to cope with the emerging problems. In this way the farmers can get hold of their future planning in a better way. Important electronic media pertinent to agriculture include radio, community radio, TV, audio, video cassettes, mobile, telephone, computer, internet, agriculture help line etc. 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 *i.e.* to develop and standardize media on need based messages of vegetables cultivation practices and to study the impact of media package on farm women.

METHODOLOGY

The study was conducted in 2014-15 in four phases, each phase having distinct methodology.

In phase I, Bhimnagar village was selected randomly from Hansi block of Hisar district of Haryana state. Fifty rural women who involved in vegetable cultivation practices were selected purposively. For assessing the need of the rural women, an inventory pertaining to critical messages and sub-messages was prepared and categorized under three categories most needed, needed and least needed with scores 3, 2 and 1, respectively. Weighted mean scores were worked out and ranks were assigned. Messages having top three ranks and ten sub-messages from each selected messages got upper rank were finally selected for media preparation after consultation with Vegetable Science and Extension Education and Communication Management Department experts.

In phase II, media package in the form of CD for rural women and printed booklet for field functionaries was prepared on selected messages. Standard procedures for preparation of media were adopted.

In phase III prepared media package was administered to 30 judges including Vegetable Science, Horticulture, Extension Education and Communication Management, Agronomy, Plant Pathology and Agriculture Extension Education Department, field functionaries and Home Scientists for effectiveness and

feedback. Standardization was done in terms of reliability, validity and field applicability.

In phase IV, media package was exposed to 30 rural farm women out of 50 women already selected village. The impact of media was assessed in terms of gain in knowledge and change in attitude of rural women. *Gain in knowledge of rural women regarding vegetables cultivation practices* : The gain in knowledge refers to the difference between the knowledge regarding various aspects of vegetable cultivation practices possessed by the respondents before and after the exposure of CD. In order to obtain the knowledge scores, close ended knowledge inventory was prepared separately for all the selected messages. The respondents were asked to reply on each of the items under the dichotomous response categories of correct/incorrect or agree/disagree. The correct replies were scored two and incorrect ones were given one score. Aggregate scores were computed to find out the overall knowledge scores of each message separately. The pre-exposure and post exposure scores were computed separately. The differences between pre and post exposure scores so obtained were taken as gain in knowledge. The pre-exposure and post-exposure frequencies, percentage, mean scores, and their differences and t-value were computed for all the selected messages of vegetables cultivation. Paired 't' test is a test of significance. It was used to measure significance of gain in knowledge and change in attitude of respondents at pre and post exposure stage following formula was used:

$$t = \frac{\bar{d}}{S/\sqrt{n}} \text{ with } (n - 1) \text{ degree of freedom}$$

Where,

\bar{d} = The mean of the difference of pre and post exposure scores

n = Number of observations

S = Standard deviation of the differences compute by usual formula

$$S = \sqrt{\frac{1}{n-1} \left\{ \sum d^2 - \frac{(\sum d)^2}{n} \right\}}$$

RESULTS AND DISCUSSION

The pre-exposure and post-exposure frequency, percentage, mean scores, and their differences and t-value were computed for all the selected messages of

vegetables cultivation practices in Bhimnagar villages of Hisar districts of Haryana state.

Gain in knowledge was computed with the help of frequency, percentage and mean scores for all the messages regarding tomato cultivation practices of village Bhimnagar are presented in Table 1 & 2. It is evident from Table that respondents succeeded in acquiring knowledge at the post-exposure level. Sufficient gain in knowledge regarding tomato cultivation practices was recorded for each messages viz., land preparation, seed rate/treatment, sowing, irrigation, nursery raising, weeding, plant protection measures, intercultural operation, fertilizer application and harvesting. The overall knowledge show of sufficient increase in knowledge to farm women regarding tomato cultivation practices after exposing them through CD. Maximum mean gain in knowledge acquiring in nursery raising as a mean score (5.00), followed by plant protection measure (3.43) and weeding (2.37). Narvankar *et al.* (2002) also found that there was significant difference in the mean knowledge score before treatment and immediately after treatment in all the selected extension teaching method that is 'Audio cassette', 'Slide Show', 'Leaflet', 'Audio cassette+ Leaflet' and 'Slide show + Leaflet'. Significant gain in knowledge and change in attitude of women respondents was observed after exposing them to the CD-Rom (Yadav (2004).

It is evident from the data in Table 3 & 4 that there was sufficient difference between pre-exposure and post-exposure knowledge of respondents for okra cultivation practices. Sufficient gain in knowledge was recorded for all the messages viz. land preparation, seed treatment, sowing, timely and proper irrigation, weeding, plant protection measures, timely intercultural operations, balanced fertilizer application, harvesting and marketing of okra in Bhimnagar village of Hisar district. Maximum mean gain in knowledge was recorded in plant protection measures, with mean score (3.27), followed by balanced fertilizer application (2.73) and weeding (2.47). Asrani (2009) also reported that overall effectiveness of CD-Rom and video cassette was perceived high for all the parameters for all the messages related to poultry farming. The comparison of knowledge gain of three Groups indicated that there was no significant difference between Groups 1 and Groups 2. However significant differences in knowledge gain was observed between

Table 1. Gain in knowledge of rural women regarding tomato cultivation practices in Bhimnagar village of Hisar district (N=30)

Components	Knowledge No. (%)		
	Pre-Exposure	Post-Exposure	Gain
<i>Land preparation</i>			
Need of ploughing and planking	24 (80.00)	29 (96.57)	5 (16.67)
Proper field layout	20 (66.67)	27 (90.00)	7 (23.33)
<i>Seed rate/treatment</i>			
Seed rate for winter season crop	10 (33.33)	23 (76.67)	13 (43.33)
Seed rate for spring season crop	8 (26.67)	20 (66.67)	12 (40.00)
Dose of chemical required for treating seed	2 (6.67)	15 (50.00)	13 (43.33)
Advantages of seed treatment	10 (33.33)	25 (83.33)	15 (50.00)
<i>Sowing</i>			
Methods for sowing seeds in nursery	10 (33.33)	24 (80.00)	14 (46.67)
Condition for raise nursery	17 (56.67)	25 (83.33)	8 (26.67)
Methods to cover the nursery beds in winter	16 (53.33)	24 (80.00)	8 (26.67)
Methods to cover the nursery beds in high temperature of the day	16 (53.33)	25 (83.33)	9 (30.00)
<i>Irrigation</i>			
Irrigation method	10 (33.33)	22 (73.33)	12 (40.00)
Application of first irrigation	10 (33.33)	22 (73.33)	12 (40.00)
Interval between two irrigation	10 (33.33)	24 (80.00)	14 (46.67)
Quantity of irrigation at ripening	6 (20.00)	23 (76.67)	17 (56.67)
Irrigation methods used in nursery	12 (40.00)	24 (80.00)	12 (40.00)
<i>Nursery raising</i>			
Recommendation of nursery site	9 (30.00)	20 (66.67)	11 (36.67)
Time of nursery raising	10 (33.33)	19 (63.33)	9 (30.00)
Nursery bed used for raising seedling in winter season	7 (23.33)	19 (63.33)	12 (40.00)
Nursery bed used for raising seedling in spring season	8 (26.67)	20 (66.67)	12 (40.00)
Appropriate size of nursery bed	8 (26.67)	19 (63.33)	11 (36.67)
Nursery area enough for one acre in winter season	8 (26.67)	20 (66.67)	12 (40.00)
Nursery area enough for one acre in spring-summer	7 (23.33)	17 (56.67)	10 (33.33)
Seedlings age transplanted for winter's season	10 (33.33)	22 (73.33)	12 (40.00)
Seedlings age transplanted for spring-summer season	9 (30.00)	21 (70.00)	12 (40.00)
Time of transplanting for winter season	10 (33.33)	20 (66.67)	10 (33.33)
Place of transplanting tomato seedlings	9 (30.00)	19 (63.33)	10 (33.33)
Appropriate size of seedlings at transplanting	9 (30.00)	19 (63.33)	10 (33.33)
Spacing of seedlings at transplanting	11 (36.67)	19 (63.33)	8 (26.67)
Seedlings transplanted per hill	8 (26.67)	20 (66.67)	12 (40.00)
<i>Weeding</i>			
Weeding methods used in nursery	11 (36.67)	28 (93.33)	17 (56.67)
Number of weeding required	17 (56.67)	24 (80.00)	7 (23.33)
Stage of weeding	14 (46.67)	28 (93.33)	14 (46.67)
Number of earthing up required	19 (63.33)	23 (76.67)	4 (13.33)
Stage of earthing up	12 (40.00)	23 (76.67)	11 (36.67)
Weedicide used to control weeds	11 (36.67)	21 (70.00)	10 (33.33)
Stage used to weedicide	13 (43.33)	21 (70.00)	8 (26.67)
<i>Plant protection measures</i>			
Insecticide for aphid	7 (23.33)	18 (60.00)	13 (43.33)
Insecticide for white fly	8 (26.67)	17 (56.67)	10 (33.33)

Borer attack on tomato	9(30.00)	18(60.00)	10(33.33)
Insecticide for fruit borer	7(23.33)	17(56.67)	9(30.00)
Diseases attack in nursery	5(16.67)	20(66.67)	15(50.00)
Diseases attack on crop	9(30.00)	16(53.33)	7(23.33)
Control measures of damping off disease	8(26.67)	20(66.67)	12(40.00)
Fungicide for early blight	7(23.33)	18(60.00)	11(36.67)
Control measure of virus disease	8(26.67)	16(53.33)	8(26.67)
Nematicide for root knot nematode	7(23.33)	18(60.00)	11(36.67)
<i>Intercultural operation</i>			
Timely intercultural operations	16(53.33)	28(93.33)	12(40.00)
Number of manual weeding	20(66.67)	24(80.00)	4(13.33)
Possibilities chemically weeds control	18(60.00)	26(86.67)	8(26.67)
Weedicides in tomato	21(70.00)	28(93.33)	7(23.33)
<i>Fertilizer Application</i>			
Basal dose of fertilizers	12(40.00)	23(76.67)	11(36.67)
Application of remaining first dose of nitrogenous fertilizer	9(30.00)	21(70.00)	12(40.00)
Application of remaining second dose of nitrogenous fertilizer	7(23.33)	20(66.67)	13(43.33)
Chemical to control cracking	9(30.00)	18(60.00)	9(30.00)
Stage of crop to apply the chemical to control cracking	9(30.00)	20(66.67)	11(36.67)
Appropriate method to apply fertilizers	12(40.00)	22(73.33)	10(33.33)
<i>Harvesting</i>			
Precautions at harvest of tomato	21(70.00)	26(86.67)	5(16.67)
Postharvest managements of tomato	26(86.67)	28(93.33)	2(6.67)
Right stage of harvesting tomato fruits	21(70.00)	27(90.00)	6(20.00)
Need of proper marketing facilities and good price of tomato	19(63.33)	26(86.67)	7(23.33)

Table 2: Gain in knowledge of rural women regarding tomato cultivation practices in Bhimnagar village of Hisar district(N=30)

Messages	Pre-Exposure (mean score)	Post-Exposure (mean score)	Gain in Knowledge (mean score)	t- value
Land preparation	1.46	1.86	0.40	4.96*
Seed treatment	1.00	2.76	1.76	9.02*
Sowing	1.96	3.26	1.30	7.21*
Timely and proper irrigation	1.60	3.83	2.23	9.87*
Nursery raising	4.10	9.10	5.00	16.29*
Weeding	3.23	5.10	2.37	10.41*
Plant protection measures	2.50	5.93	3.43	11.37*
Timely intercultural operations	2.50	3.53	1.03	6.73*
Balanced fertilizer application	1.93	4.13	2.20	9.29*
Harvesting and marketing	2.90	3.56	0.66	5.14*

*Significant at 5% level of significance

Group 2 and Group 3 and also in Group 1 and Group 3 this means that video cassette was more effective than CD-Rom in increasing knowledge of respondents. Video compact disc was effective for educating the farm women because the message was simple, familiar, understandable and real (Singh & Anuradha 2011).

Table 5 & 6 depict that respondents succeeded in acquiring knowledge at the post-exposure level regarding cucurbits cultivation practices in Bhimnagar village of Hisar district. Sufficient gain in knowledge

was recorded for all the messages viz. land preparation, seed treatment, sowing, timely and proper irrigation, weeding, plant protection measures, timely intercultural operations, balanced fertilizer application and harvesting and marketing. Maximum mean gain in knowledge was recorded in plant protection measures, with mean score (3.80), followed by weeding (2.97), and balanced fertilizer application (2.77). Chaudhary (2012) also reported that the developed interactive CD was good and could be used by field functionaries, extension

Table 3: Gain in knowledge of rural women regarding okra cultivation practices in Bhimnagar village of Hisar district (N=30)

Components	Knowledge No. (%)		
	Pre-Exposure	Post-Exposure	Gain
<i>Land preparation</i>			
Need of ploughing and planking	21 (70.00)	28 (93.33)	7 (23.33)
Proper field layout	20 (66.67)	24 (80.00)	4 (13.33)
<i>Seed rate/treatment</i>			
Seed rate for spring summer season crop	12 (40.00)	22 (73.33)	10 (33.33)
Seed rate for rainy season crop	13 (43.33)	21 (70.00)	8 (26.67)
Soaking okra seeds in water	17 (56.67)	28 (93.33)	11 (36.67)
Advantages of soaking okra seeds	12 (40.00)	28 (93.33)	16 (53.33)
<i>Sowing</i>			
Sowing time in spring summer	11 (36.67)	25 (83.33)	14 (46.67)
Sowing time in rainy summer	13 (43.33)	25 (83.33)	12 (40.00)
Spacing on ridge in spring summer season	13 (43.33)	24 (80.00)	11 (36.67)
Spacing in rainy season	10 (33.33)	24 (80.00)	14 (46.67)
<i>Irrigation</i>			
Irrigation method in spring summer season	10 (33.33)	22 (73.33)	12 (40.00)
Irrigation method in rainy season	13 (43.33)	25 (83.33)	12 (40.00)
Application of first irrigation	10 (33.33)	25 (83.33)	15 (50.00)
Interval between two irrigation in spring summer season	12 (40.00)	27 (90.00)	15 (50.00)
Interval between two irrigation in rainy season	11 (36.67)	23 (76.67)	12 (40.00)
<i>Weeding</i>			
Weeding methods	12 (40.00)	28 (93.33)	16 (53.33)
Number of weeding required	18 (60.00)	28 (93.33)	10 (33.33)
Stage of weeding	14 (46.67)	27 (90.00)	14 (46.67)
Number of earthing up required	18 (60.00)	26 (86.67)	8 (26.67)
Stage of earthing up in spring summer season	10 (33.33)	21 (70.00)	11 (36.67)
Weedicide used to control weeds	8 (26.67)	18 (60.00)	10 (33.33)
Stage used to weedicide	12 (40.00)	18 (60.00)	6 (20.00)
<i>Plant protection measures</i>			
Insecticide for jasad	10 (33.33)	21 (70.00)	11 (36.67)
Insecticide for white fly	13 (43.33)	20 (66.67)	7 (23.33)
Borer attack on okra pod	13 (43.33)	23 (76.67)	10 (33.33)
Insecticide for pod borer	10 (33.33)	21 (70.00)	11 (36.67)
Insecticide for red mite	9 (30.00)	19 (63.33)	10 (33.33)
Treatment for viruses disease	11 (36.67)	20 (66.67)	9 (30.00)
Treatment for root rot disease	10 (33.33)	19 (63.33)	9 (30.00)
Treatment for root knot nematode disease	8 (26.67)	16 (53.33)	8 (26.67)
Insect pest and disease affected fruits sorting and burring into the soil	14 (46.67)	23 (76.67)	9 (30.00)
Pods picking before spray	15 (50.00)	29 (96.67)	14 (46.67)
<i>Intercultural operation</i>			
Timely intercultural operations	19 (63.33)	30 (100.00)	11 (36.67)
Manual weeding requirement	21 (70.00)	26 (86.67)	5 (16.67)
Line sowing helps in weeding and hoeing	23 (76.67)	28 (93.33)	5 (16.67)
Weeding and hoeing help in good growth	25 (83.33)	30 (100.00)	5 (16.67)
<i>Fertilizer application</i>			
Timely fertilizers application	12 (40.00)	23 (76.67)	11 (36.67)
Basal dose of fertilizers	9 (30.00)	26 (86.67)	17 (56.67)
Time of farmyard manure application	9 (30.00)	22 (73.33)	13 (43.33)

Application of remaining first dose of nitrogenous fertilizer	9 (30.00)	19 (63.33)	10 (33.33)
Application of remaining second dose of nitrogenous fertilizer	10 (33.33)	25 (83.33)	15 (50.00)
Moisture in the soil at nitrogenous fertilizer application	14 (46.67)	30 (100.00)	16 (53.33)
<i>Harvesting</i>			
Proper harvesting time and stage of okra pod	20 (66.67)	27 (90.00)	7 (23.33)
Interval between two picking	24 (80.00)	29 (96.57)	5 (16.67)
Proper harvesting methods	19 (63.33)	24 (80.00)	5 (16.67)
Need of proper marketing facilities and good price of okra	19 (63.33)	28 (93.33)	9 (30.00)

Table 4. Gain in knowledge of rural women regarding okra cultivation practices in Bhimnagar village of Hisar district (N=30)

Messages	Pre-Exposure (mean score)	Post-Exposure (mean score)	Gain in Knowledge (mean score)	t- value
Land preparation	1.36	1.73	0.37	3.27*
Seed treatment	1.80	3.30	1.50	8.57*
Sowing	1.56	3.26	1.70	7.36*
Timely and proper irrigation	1.86	4.06	2.20	10.70*
Weeding	3.06	5.53	2.47	11.61*
Plant protection measures	3.76	7.03	3.27	12.04*
Timely intercultural operations	2.93	3.80	0.87	5.34*
Balanced fertilizer application	2.10	4.83	2.73	10.25*
Harvesting and marketing	2.73	3.60	0.87	5.52*

*Significant at 5% level of significance

Table 5: Gain in knowledge of rural women regarding cucurbits cultivation practices in Bhimnagar village of Hisar district (N=30)

Components	Knowledge No. (%)		
	Pre-Exposure	Post-Exposure	Gain
<i>Land preparation</i>			
Need of ploughing and planking	20 (66.67)	29 (96.67)	9 (30.00)
Proper field layout	15 (50.00)	26 (86.67)	11 (36.67)
<i>Seed rate/treatment</i>			
Seed rate for spring summer season crop	10 (33.33)	21 (70.00)	11 (36.67)
Seed rate for rainy season crop	10 (33.33)	23 (76.67)	13 (43.33)
Soaking seeds in water	15 (50.00)	29 (96.67)	14 (46.67)
Advantages of soaking seeds	12 (40.00)	29 (96.67)	17 (56.67)
<i>Sowing</i>			
Sowing of cucurbits on raised bed	13 (43.33)	26 (86.67)	13 (43.33)
Sowing of cucurbits crops in one year	18 (60.00)	26 (86.67)	8 (26.67)
Spacing on ridge in spring summer season	14 (46.67)	26 (86.67)	12 (40.00)
Seeds sowing per hill	12 (40.00)	28 (93.33)	16 (53.33)
<i>Irrigation</i>			
Timely and proper irrigation	10 (33.33)	26 (86.67)	16 (53.33)
Irrigation method	13 (43.33)	27 (90.00)	14 (46.67)
Stage of application of first irrigation	10 (33.33)	25 (83.33)	15 (50.00)
Need of pre-irrigation	12 (40.00)	27 (90.00)	15 (50.00)
Interval between two irrigation in spring summer season	11 (36.67)	25 (83.33)	14 (46.67)
<i>Weeding</i>			
Weeding methods	12 (40.00)	28 (93.33)	16 (53.33)
Number of weeding required	18 (60.00)	25 (83.33)	7 (23.33)

Stage of weeding	14 (46.67)	27 (90.00)	14 (46.67)
Number of earthing up required	12 (40.00)	26 (86.67)	14 (46.67)
Stage of earthing up in spring summer season	10 (33.33)	25 (83.33)	15 (50.00)
Use of black polythene mulch to control weeds	8 (26.67)	20 (66.67)	12 (40.00)
Tool for manual weeding	16 (53.33)	28 (93.33)	12 (40.00)
Plant protection measures			
Attack of sucking pest	10 (33.33)	23 (76.67)	13 (43.33)
Insecticide for sucking pest	7 (23.33)	18 (60.00)	11 (36.67)
Insecticide for red pumpkin beetle	8 (26.67)	19 (63.33)	11 (36.67)
Insecticide for white fly	9 (30.00)	17 (56.67)	8 (26.67)
Control of serious disease of cucurbits	8 (26.67)	19 (63.33)	11 (36.67)
Most serious disease of cucurbits	7 (23.33)	17 (56.67)	10 (33.33)
Precaution while apply sulphur powder	10 (33.33)	22 (73.33)	12 (40.00)
Treatment for viruses disease	8 (26.67)	22 (73.33)	14 (46.67)
Chemical applied to control the downy mildew, anthracnose and gummy color rot	10 (33.33)	5 (16.67)	15 (50.00)
Cucurbits be harvested before the spray of any chemical	15 (50.00)	29 (96.67)	14 (46.67)
Intercultural operation			
Timely intercultural operations	19 (63.33)	30 (100.00)	11 (36.67)
Manual weeding much requirement	15 (50.00)	26 (86.67)	11 (36.67)
Weeds controlled by tractor drawn tillers in early stage	13 (43.33)	25 (83.33)	12 (40.00)
In the later stage of plant growth only hoeing and weeding possible in cucurbits	15 (50.00)	15 (50.00)	30 (100.00)
Fertilizer application			
Basal dose of fertilizers	8 (26.67)	23 (76.67)	15 (50.00)
Time of farmyard manure application	9 (30.00)	26 (86.67)	17 (56.67)
Application of remaining first dose of nitrogenous fertilizer	9 (30.00)	22 (73.33)	13 (43.33)
Application of remaining second dose of nitrogenous fertilizer	9 (30.00)	19 (63.33)	10 (33.33)
Moisture in the soil at nitrogenous fertilizer application	17 (56.67)	29 (96.67)	12 (40.00)
Method for fertilizers application	14 (46.67)	30 (100.00)	16 (53.33)
Harvesting			
Proper harvesting stage of cucurbits fruits	18 (60.00)	27 (90.00)	9 (30.00)
Harvesting of cucurbits in cooler hours the day	24 (80.00)	29 (96.67)	5 (16.67)
Cucurbits produce shifted under shade soon after harvesting	19 (63.33)	24 (80.00)	5 (16.67)
Need of proper marketing facilities and good price of okra	19 (63.33)	26 (86.67)	7 (23.33)

Table 6: Gain in knowledge of rural women regarding cucurbits cultivation practices in Bhimnagar village of Hisar district (N=30)

Messages	Pre-Exposure (mean score)	Post-Exposure (mean score)	Gain in Knowledge (mean score)	t- value
Land preparation	1.17	1.83	0.66	6.02*
Seed treatment	1.57	3.40	1.83	9.57*
Sowing	1.90	3.53	1.63	9.52*
Timely and proper irrigation	1.87	4.33	2.46	12.58*
Weeding	3.00	5.97	2.97	13.34*
Plant protection measures	2.90	6.70	3.80	12.63*
Timely intercultural operations	2.06	3.70	1.64	9.64*
Balanced fertilizer application	2.20	4.97	2.77	11.17*
Harvesting and marketing	2.67	3.53	0.86	5.07*

*Significant at 5% level of significance

workers and all those agencies/ organizations working in rural area for transfer of scientific information to rural women. Jain (2005) and Manju et al. (2012) are also in line with the present findings. Yadav (2013) also observed that rural women when exposed to CD on fruits and vegetable processing, it was found that there was significant gain in the knowledge of rural women regarding all the selected messages in all the four selected districts of Haryana State.

CONCLUSION

Sufficient gain in knowledge regarding vegetables cultivation practices was recorded for each messages viz., tomato, okra and cucurbits cultivation practices. The study also concluded that women succeeded in acquiring knowledge after exposing them to media package on vegetables cultivation practices. This reflects the effectiveness of the Compact Disc (CD) and printed booklet.

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