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Training Needs of Vegetable Growers in Jaunpur District of Uttar Pradesh

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ABSTRACT

Importance of training as an indispensable instrument for the development of skill and knowledge cannot be ignored. Training has become a critical input especially in view of the growing sophistication in agricultural technology as well as its cost intensive nature. However, no training programme would bring desirable change in knowledge, skill, attitude and other behavioural components of the farmer unless it is need based. Much can be achieved in the direction of increasing vegetable production and productivity if the farmers are trained after assessing their level and extent of training needs and requirements. To know the profile and the level of training need of farmers to carry out their vegetable farming the study was undertaken in Karanjakala block of Jaunpur district of Uttar Pradesh. Two hundred fourteen (214) vegetable growers were randomly selected as respondents for the purpose of study. The findings reveal that the Majority of the respondents were in 36 to 54 years age group, having education up to Intermediate, from Other Backward Caste Category, from joint families, having large size family, large land holdings, agriculture as main occupation, from medium income group, and having 21 to 32 years of farming experience. Respondents' first choice of training was in the area of Pumpkin cultivation followed by Bottle Gourd (2nd rank), and Radish (3rd rank). Pumpkin cultivation and Bottle Gourd cultivation were most preferred vegetable for training. While, the training need preferences in main areas and sub areas of vegetable cultivation are different for each vegetables.

Key Words: Profile, level of training need, vegetable production.

INTRODUCTION

India is the second largest producer of vegetable in world next to China. Current per capita consumption of vegetable is 175g per capita per day, which is far below recommended dose of 300g (ICMR). There is an urgent need to increase the productivity of vegetable in order to provide nutritional security to increasing population of India. Uttar Pradesh is second largest producer of vegetable after West Bengal. It has an area of 0.84 million ha under vegetable which account for 15.8 million tonnes production (Singh *et al.*, 2010). The status of vegetables in the year 2012-13, shows that both India and Uttar Pradesh were standing at second place at country level and state level; respectively. The figures shows that the area, production and productivity of India in 1st adv. estimates were 9081 thousand ha, 160291 thousand MT and 17.65 MT/ha and in 2nd adv. estimates were 9083 thousand ha, 156445 thousand MT and 17.22 MT/ha, and Uttar Pradesh were 860 Thousand HA, 17436 thousand MT and 20.27 MT/ha. The growth trends has been increased from 6.4 to 9.6 lakhs in 2010-11 over 2009-10 (NHB, 2012).

Training plays an important role in the advancement of human performance in a given situation. Training provides a systematic improvement of knowledge and skill which in turn helps the trainees to function effectively and efficiently in their given task on completion of the training. Training is a process of acquisition of new skills, attitude and knowledge in the context of preparing for entry into a vocation or improving ones productivity in an organization or enterprise. Effective training requires a clear picture of how the trainees will need to use information after training in place of local practices what they have adopted before in their situation. *Lynton and Pareek* (*1990*) stated that training consists largely of well organized opportunities for participants to acquire necessary understanding and skill. Farmer training is directed towards improving their job efficiency in farming. The kind of education we call as training is not for knowing more but behaving differently (Sajeev and Singha, 2010). Effective training can not be planned without knowing profile and training need of different vegetables growers. Keeping this background in mind the present study was planned with following specific objectives to know the socio-economic profile of vegetable growers and to find

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out the training need of vegetable growers.

METHODOLOGY

The study was conducted in the purposively selected Karanjakala Block of Jaunpur district in Uttar Pradesh. The data was collected from a sample of 214 families of 10 villages, which were selected randomly. Prominent vegetables grown in the study area were selected. While selecting vegetables round the year production of vegetables crops was kept in mind. Keeping these two factors in mind radish & cauliflower (Brassicaceae family), pumpkin & bottle gourd (Cucurbitaceae family), and Potato & tomato (Solanaceae family) were selected. Data was collected through structured interview schedule. Collected data was tabulated and analyzed by using simple statistical techniques like frequency, percentage, mean, standard deviation and rank order.

RESULTS AND DISCUSSION

Profile of vegetable growers

Majority of the respondents were in 36 to 54 years age group, having education up to Intermediate, from Other Backward Caste Category, from joint families, having large size family, large land holdings, agriculture as main occupation, from medium income group, and having 21 to 32 years of farming experience.

Training needs of vegetable growers in different subject matter area of training

Preference of training for various vegetables

Findings related to preference of respondents towards training for various vegetables cultivation has been presented in Table 1. Mean and rank order presented in the table clearly indicate that respondents' first choice of training was in the area of Pumpkin cultivation followed by Bottle Gourd (2nd rank), Radish (3rd rank), Tomato (4th rank), Cauliflower (5th rank), and Potato (6th rank).

Table 1: Respondents' preference of training for various vegetables cultivation

Name of the vegetable	Preference (I-VI)						Total score	Mean score	Rank order
Radish	13	37	52	27	24	61	837	3.91	III
Cauliflower	84	45	21	12	39	13	558	2.60	V
Pumpkin	05	14	31	63	51	50	933	4.35	I
Bottle gourd	09	22	39	49	61	45	919	4.29	II
Potato	69	67	21	23	07	27	555	2.59	VI
Tomato	34	40	50	40	32	18	692	3.23	IV

Pumpkin cultivation and Bottle Gourd cultivation were most preferred vegetable for training. It may be because of non availability of training programme in the area of cucurbitaceous vegetables.

Training needs assessment for growing radish

Table 2: Prioritization of training needs under main area of radish cultivation

n=214

Main area	Degree of training needs				Total score	Mean score	Rank order
	HN	MN	PN	NN			
Land preparation	45 (21.02)	69 (32.24)	100 (46.72)	00	587	2.74	VI
Improved seeds	66 (30.84)	127 (59.34)	21 (9.81)	00	687	3.21	I
Nursery raising	00	00	00	214 (100)	214	1.00	X
Method of sowing	20 (9.34)	125 (58.41)	69 (32.24)	00	593	2.77	V
Use of manures and fertilizers	10 (4.67)	114 (53.27)	90 (42.05)	00	562	2.62	VII
Irrigation management	48 (22.43)	88 (41.12)	78 (36.44)	00	612	2.85	IV
Weed Management	64 (29.90)	114 (53.27)	36 (16.82)	00	670	3.13	II
Plant protection measures application	27 (12.61)	138 (64.48)	49 (22.89)	00	620	2.89	III
Harvesting	15 (7.00)	83 (38.78)	107 (50.00)	00	532	2.48	VIII
Post harvest technology	18 (8.41)	60 (28.03)	120 (56.07)	16 (7.47)	508	2.37	IX

HN = Highly needed, MN = Moderately needed, PN = Partially needed, NN = Not needed

The Table 2 reveals that under radish cultivation majority of the respondents showed their training need in the main area improved seeds (1st rank).

The training needs prioritization of main area related to radish cultivation ranked in descending order were Weed Management (2nd rank), Plant protection measures application (3rd rank), Irrigation management (4th rank), method of sowing (5th rank), Land preparation (6th rank), Use of manures and fertilizers (7th rank), Harvesting (8th rank), Post harvest technology(9th rank) and Nursery raising (10th rank).

The areas which got I, II and III rank orders may be considered as important main areas of training under radish cultivation. The findings of the present study are partially in line with the findings reported by Verma and Singh (1994), and Prakash and Kushwaha (1995).

Training needs assessment for growing Cauliflower

Table 3:Prioritization of training needs under main area of cauliflower cultivation

n = 214

Main area	Degree of training needs				Total score	Mean score	Rank order
	HN	MN	PN	NN			
Land preparation	55 (25.70)	68 (31.77)	15 (7.00)	11 (5.14)	595	2.78	VI
Improved seeds	97 (45.32)	102 (47.66)	15 (7.00)	00	724	3.38	I
Nursery raising	96 (44.85)	89 (41.58)	25 (11.68)	00	709	3.31	II
Method of sowing	25 (11.68)	95 (44.39)	94 (43.92)	00	573	2.67	VII
Use of manures and fertilizers	06 (2.80)	129 (60.28)	79 (36.91)	00	569	2.65	VIII
Irrigation management	67 (31.30)	66 (30.84)	81 (37.85)	00	628	2.93	IV
Weed Management	86 (40.18)	105 (49.06)	22 (10.28)	01 (0.46)	704	3.28	III
Plant protection measures	15 (7.00)	165 (77.10)	33 (15.42)	01 (0.46)	622	2.90	V
Harvesting	13 (6.07)	96 (44.85)	105 (49.06)	00	550	2.57	X
Post harvest technology	07 (3.27)	109 (50.93)	98 (45.79)	00	551	2.58	IX

HN = Highly needed, MN = Moderately needed, PN = Partially needed, NN = Not needed.

The Table-3 reveals that under cauliflower cultivation majority of the respondents showed their training need in the main area improved seeds (1st rank).The training needs prioritization of main area related to cauliflower cultivation ranked in descending order were Nursery raising (2nd rank), Weed Management (3rd rank), Irrigation management (4th rank), Plant protection measures (5th rank), Land preparation (6th rank), Method of sowing (7th rank), Use of manures and fertilizers (8th rank), Post harvest technology (9th rank) and Harvesting (10th rank). The areas which got I, II and III rank orders may be considered as important areas of training under cauliflower cultivation.

Training needs assessment for growing pumpkin

Table 4: Prioritization of training needs under main area of Pumpkin cultivation

n = 214

Main area	Degree of training needs				Total score	Mean score	Rank order
	HN	MN	PN	NN			
Land preparation	22 (10.28)	101 (47.19)	91 (42.52)	00	573	2.67	VI
Improved seeds	33 (15.42)	171 (79.90)	10 (4.67)	00	665	3.10	I
Nursery raising	01 (0.46)	03 (1.40)	08 (3.73)	202 (94.39)	228	1.06	X
Method of sowing	20 (9.34)	62 (28.97)	131 (61.21)	00	551	2.57	VII
Use of manures and fertilizers	22 (10.28)	124 (57.94)	67 (31.30)	01 (0.46)	595	2.78	V
Irrigation management	45 (21.02)	87 (40.65)	82 (38.31)	00	605	2.82	IV
Weed Management	48 (22.42)	138 (64.48)	28 (13.08)	00	662	3.09	II
Plant protection measures	22 (10.28)	137 (64.01)	55 (25.70)	00	609	2.84	III
Harvesting	07 (32.71)	76 (35.51)	125 (58.41)	06 (2.80)	512	2.39	IX
Post harvest technology	15 (7.00)	67 (31.30)	120 (56.07)	12 (5.60)	513	2.40	VIII

HN = Highly needed, MN = Moderately needed, PN = Partially needed, NN = Not needed.

The Table-4 reveals that under Pumpkin cultivation majority of the respondents showed their training need in the main area Improved seeds (1st rank). The training needs prioritization of main area related to pumpkin cultivation ranked in descending order were Weed Management (2nd rank), Plant protection measures application (3rd rank), Irrigation management (4th rank), Use of manures and fertilizers (5th rank), Land preparation (6th rank), Method of sowing (7th rank), Post harvest technology (8th rank), Harvesting (9th rank) and Nursery raising (10th rank). The areas which got I, II and III rank orders may be considered as important areas of training under pumpkin cultivation.

Training needs assessment for growing bottle gourd

Table 5: Prioritization of training needs under main area of bottle gourd cultivation

n = 214

Main area	Degree of training needs				Total score	Mean score	Rank order
	HN	MN	PN	NN			
Land preparation	19 (8.87)	93 (43.45)	92 (42.99)	10 (4.67)	549	2.56	VII
Improved seeds	45 (21.02)	155 (72.42)	14 (6.54)	00	673	3.14	II
Nursery raising	00	00	00	214 (100)	214	1.00	X
Method of sowing	14 (6.54)	110 (51.40)	90 (42.05)	00	566	2.64	VI
Use of manures and fertilizers	08 (3.73)	132 (61.68)	73 (34.11)	01 (0.46)	575	2.68	V
Irrigation management	44 (20.56)	87 (40.65)	83 (38.78)	00	603	2.81	IV
Weed Management	66 (30.84)	123 (57.47)	24 (11.21)	01 (0.46)	682	3.18	I
Plant protection measures	33 (15.42)	120 (56.07)	53 (24.76)	08 (3.73)	606	2.83	III
Harvesting	08 (3.73)	96 (44.85)	84 (39.25)	26 (12.14)	514	2.40	IX
Post harvest technology	20 (9.34)	97 (45.32)	66 (30.84)	31 (14.48)	534	2.49	VIII

HN = Highly needed, MN = Moderately needed, PN = Partially needed, NN = Not needed.

The Table-5reveals that under bottle gourd cultivation majority of the respondents showed their training needs in the main area Weed Management (1st rank). The training needs prioritization of main area related to bottle gourd cultivation ranked in descending order were Improved seeds (2nd rank), Plant protection measures application (3rd rank), Irrigation management (4th rank), Use of manures and fertilizers (5th rank),

Method of sowing (6th rank), Land preparation (7th rank), Post harvest technology (8th rank), Harvesting (9th rank) and Nursery raising (10th rank). The areas which got I, II and III rank orders may be considered as important main areas of training under bottle gourd cultivation.

Training needs assessment for growing potato

Table 6: Prioritization of training needs under main area of potato cultivation

n = 214

Main area	Degree of training needs				Total score	Mean score	Rank order
	HN	MN	PN	NN			
Land preparation	88 (41.12)	54 (25.23)	69 (32.24)	03 (1.40)	655	3.06	III
Improved seeds	77 (35.98)	125 (58.41)	12 (5.60)	00	707	3.30	I
Nursery raising	00	00	00	214 (100)	214	1.00	X
Method of sowing	08 (3.73)	149 (69.62)	51 (23.83)	06 (2.80)	587	2.74	VII
Use of manures and fertilizers	29 (13.55)	124 (57.94)	56 (26.16)	05 (2.33)	605	2.82	VI
Irrigation management	45 (21.02)	128 (59.81)	41 (19.15)	00	646	3.01	IV
Weed Management	83 (38.78)	110 (51.40)	21 (9.81)	00	704	3.28	II
Plant protection measures	29 (13.55)	132 (61.68)	53 (24.76)	00	618	2.88	V
Harvesting	10 (4.67)	113 (52.80)	89 (41.58)	02 (0.93)	559	2.61	IX
Post harvest technology	20 (9.34)	119 (55.60)	62 (28.97)	13 (6.07)	574	2.68	VIII

HN = Highly needed, MN = Moderately needed, PN = Partially needed, NN = Not needed.

The Table-6 reveals that under Potato cultivation majority of the respondents showed their training needs in the main area Improved seeds (1st rank) The training needs Prioritization of main area related to Potato cultivation ranked in descending order were Weed Management (2nd rank), Land preparation (3rd rank), Irrigation management (4th rank), Plant protection measures (5th rank), Use of manures and fertilizers (6th rank), Method of sowing (7th rank), Post harvest technology (8th rank), Harvesting (9th rank) and Nursery raising (10th rank).

The areas which got I, II and III rank orders may be considered as important main areas of training under Potato cultivation.

Training needs assessment for growing tomato

The Table-7 reveals that under Tomato cultivation majority of the respondents showed their training need in the main area improved seeds (1st rank). The training needs prioritization of main area related to Tomato cultivation ranked in descending order were Weed Management (2nd rank), Nursery raising (3rd rank), Irrigation management (4th rank), Plant protection measures (5th rank), Method of sowing (6th rank), Use of manures and fertilizers (7th rank), Land preparation (8th rank), Post harvest technology(9th rank) and Harvesting (10th rank). The areas which got I, II and III rank orders may be considered as important main areas of training under Tomato cultivation.

Table 7: Prioritization of training needs under main area of Tomato cultivation

n = 214

Main area	Degree of training needs				Total score	Mean score	Rank order
	HN	MN	PN	NN			
Land preparation	30 (14.01)	99 (46.26)	80 (37.38)	05 (2.33)	582	2.71	VIII
Improved seeds	70 (32.71)	136 (63.55)	08 (3.73)	00	704	3.28	I
Nursery raising	66 (30.84)	133 (62.14)	09 (4.20)	06 (2.80)	687	3.21	III
Method of sowing	33 (15.42)	107 (50.00)	69 (32.24)	05 (2.33)	596	2.78	VI
Use of manures and fertilizers	13 (6.07)	140 (65.42)	60 (28.03)	01 (0.46)	593	2.77	VII
Irrigation management	59 (27.75)	108 (50.46)	37 (17.28)	10 (4.67)	644	3.00	IV
Weed Management	79 (36.91)	115 (53.73)	19 (8.87)	01 (0.46)	700	3.27	II
Plant protection measures	20 (9.34)	153 (71.49)	41 (19.15)	00	621	2.90	V
Harvesting	08 (3.73)	95 (44.39)	101 (47.19)	10 (4.67)	529	2.47	X
Post harvest technology	09 (4.20)	129 (60.28)	63 (29.43)	13 (6.07)	562	2.62	IX

HN = Highly needed, MN = Moderately needed, PN = Partially needed, NN = Not needed.

CONCLUSION

The findings of the present study are very important for extension education research workers as well as for planning and implementation of need based training to the vegetable growers. Since vegetable growers have indicated their training need in production technologies for all the six vegetables. Therefore extension workers and scientists of Krishi Vigyan Kendras are suggested to plan training programme for Pumpkin, Bottle Gourd, Radish, Tomato, Cauliflower, and Potato cultivation. Further respondents have indicated their training need mainly in the area of improved seeds, weed management and plant protection measures. Therefore, farmers' trainers are advised to give more emphasis on aforesaid area of vegetable production.

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