

Original Research Article

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Training Needs of Farmers With Respect to New Agricultural Practices

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ABSTRACT

Keywords

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The present study was conducted in Krishi Vigyan Kendras operational area of Amreli district. Out of 11 talukas, 5 talukas selected randomly. Out of 5 selected talukas, 2 villages will be selected from each taluka randomly 5 villages selected. Among selected villages, 10 Farmers from each village were selected for the study. Thus, total 100 respondents were selected for this study. Study revealed that majority of the respondents training needs related to fertilizers is vermi composting and in case of seeds, improved varieties and hybrids of different crops, related to pesticides it was control of disease and insect by proper pesticides and lastly, regarding farm machinery and implements it was getting subsidy and loan.

Introduction

In Saurashtra region the Amreli is agriculture-dominated district. About 80 % of population is engaged in agriculture and allied activities. The Amreli district offers good scope for Agricultural development. Agricultural Production potential depends mostly on the management practices. These practices vary significantly across various agro-ecological regions due to many factors.

Decision making process on farm matter, perform many of the farm operations and undertake many responsibilities concerning management of farm activity. Agricultural activities are the main areas of the economic activities for rural area.

Thus for making training more effective, it should be based on farmers felt needs.

The training programme which is not need based may have a little impact on bring desired change in the clientele system.

Keeping this fact in view, the future study of training needs of farmer with respect to new agricultural production practices in Amreli district of Saurashtra region of Gujarat State will be undertaken with following specific objective.

To study the training needs of the farmers with respect to New Agricultural practices related to fertilizers, seed, pesticide, machinery and implement.

Materials and Methods

The study was being conducted in Krishi Vigyan Kendras operational area of Amreli district. Out of 11 talukas, 5 talukas viz., Amreli, Bagasara, Savarkundla, Rajula and babara selected randomly. Out of 5 selected talukas, 2 villages will be selected from each taluka randomly viz., Champathal, babapur, Mandavda, samadhiyala, gadhakda, likhala, agariya, Katar, Charkha, bambhaniya. Among selected villages, 10 Farmers from each village were selected for the study. Thus, total 100 respondents were selected for this study. The questionnaire was prepared in local language in accordance with the objectives.

Training needs of the farmers were assessed under five sub heads which include training needs related to fertilizers, Seed, Pesticides, farm machinery and implements and animal feed and chemicals. The training needs were assessed by ranking them according to immediate necessities felt by farmer and scoring of 3, 2 and 1 was given to the items most needed, somewhat needed and not needed respectively. Firstly, the total training need score of a particular item was calculated considering the responses expressed by all the respondents. Secondly, the mean score of a particular item was worked out by dividing the total score of their particular item with the total number of respondents. Finally, based on the mean score, the rank order of preference for training in a particular area was found out.

Results and Discussion

Training needs of the farmers with respect to New Agricultural practices

An attempt was made to know the training needs by respondents and frequency and percentage for each training needs were calculated. Then they were ranked and presented in Table 1.

The data presented in Table 1 observed that most important training need of farmers related to fertilizers is vermi composting (2.64) and ranked first which in conformity with Singh *et al.*, (2006) who revealed that majority of the respondents expressed training needs for methods of vermin compost making.

Further, fertigation (2.60) and micro nutrients fertilizers was ranked second by the respondents. Moreover, respondents had given preference to Nutrient contents in fertilizers (2.53), Methods of fertilizer application and Methods of fertilizer application (2.44), Composting (2.42), Methods of nitrogenous fertilizer application (2.40), Soil testing for fertilizer application (2.26), Bio-fertilizers (2.22), Type of fertilizers (2.15), Cake fertilizers (2.12), Implements used for fertilizer application (1.94), Go-down construction (1.88), Fertilizer doses for crops (1.83), Fertilizer store (1.63) which were ranked at III, IV, V, VI, VII, VII, VIII, IX, X, XI, XII, XIII, XIV. This finding are supported with Lego *et al.*, (2018), Bassim, (2016), Waghmode *et al.*, (2014) and Prashanth *et al.*, (2013).

Ranks reflected that respondents interests towards organic farming and efficient use of farm residues so they are very interested towards vermi-composting. Apart from that they have also need interested on fertigation technology and micro nutrients fertilizers In addition, respondents had very much preference to trainings needs regarding nutrient content in fertilizers and INM and methods of fertilizer application showing farmers interest in economic and efficient use of fertilizers. Later on, ranks show respondents may have some knowledge about these aspects and hence score are low.

The data presented in Table 2 indicated that improved varieties and hybrids of different crops (2.63) was given as most pressed areas

of training need by respondents followed by seed treatment (2.56), type of seeds (2.56), Certified seeds (2.50), Ideal seed storage (2.46), germination power of seeds of different crop (2.45), Fumigation to seeds (2.23), Cultivation of hybrids of different crops (2.16), Viability of seeds of different crops (2.15) and hence ranked II, III, IV, V, VI, VII, VII, VIII and IX respectively. This finding is supported with Lego *et al.*, (2018), Bassim, (2016) and Waghmode *et al.*, (2014).

Ranks showed that respondents are very curious to know about what kinds of variety him or her cultivated, can they used it in next year or not etc. Moreover, need of training about seed treatment indicated that respondents awareness regarding soil borne diseases or may be the area have problem of this kinds of soil borne diseases. It is very interested and good for agricultural point of view that respondent's need of training area were type of seeds and certified seeds also.

Table.1 Training needs of the respondents with respect to New Agricultural Practices related to Fertilizer

n=100

Training needs	Most Needed	Somewhat Needed	Not Needed	Total	Mean Score	Rank
Vermin-composting	70	24	6	100	2.64	I
Fertigation	69	22	9	100	2.60	II
Micro-nutrients fertilizers	63	34	3	100	2.60	II
Nutrient contents in fertilizers	57	39	4	100	2.53	III
Integrated nutrient management	56	32	12	100	2.44	IV
Methods of fertilizer application	51	42	7	100	2.44	IV
Composting	64	14	22	100	2.42	V
Methods of nitrogenous fertilizer application	49	42	9	100	2.40	VI
Soil testing for fertilizer application	47	32	21	100	2.26	VII
Bio-fertilizers	32	58	10	100	2.22	VIII
Type of fertilizers	23	69	8	100	2.15	IX
Cake fertilizers	30	52	18	100	2.12	X
Implements used for fertilizer application	20	54	26	100	1.94	XI
Go-down construction	23	42	35	100	1.88	XII
Fertilizer doses for crops	31	21	48	100	1.83	XIII
Fertilizer store	16	31	53	100	1.63	XIV

Table.2 Training needs of the respondents with respect to New Agricultural Practices Related to Seed

n=100

Training needs	Most Needed	Somewhat Needed	Not Needed	Total	Mean Score	Rank
Improved varieties and hybrids of different crops	72	19	9	100	2.63	I
Seed treatment	70	16	14	100	2.56	II
Type of seeds	65	21	14	100	2.51	III
Certified seeds	64	22	14	100	2.50	IV
Ideal seed storage	56	34	10	100	2.46	V
Germination power of seeds of different crop	58	29	13	100	2.45	VI
Fumigation to seeds	38	47	15	100	2.23	VII
Cultivation of hybrids of different crops	24	68	8	100	2.16	VIII
Viability of seeds of different crops	42	31	27	100	2.15	IX

Table.3 Training needs of the respondents with respect to New Agricultural Practices related to pesticides

n=100

Training needs	Most Needed	Somewhat Needed	Not Needed	Total	Score	Rank
Control of disease and insect by proper pesticides	76	24	0	100	2.76	I
Type of pesticides	72	24	4	100	2.68	II
Protection of the stored seeds from pest	69	24	7	100	2.62	III
Preparation of solution of pesticides for spraying	70	21	9	100	2.61	IV
Protective measures and treatment over poisoning	61	27	12	100	2.49	V
Methods of proper spraying and dusting	48	31	21	100	2.27	VI
Types of improved sprayers and dusters	46	28	26	100	2.20	VII
Disposal of empty bottles and containers	38	26	36	100	2.02	VIII

Table.4 Training needs of the respondents with respect to New Agricultural practices related to related to machinery and implements

n=100

Training needs	Most Needed	Somewhat Needed	Not Needed	Total	Means Score	Rank
Regarding getting subsidy and loan	72	22	6	100	2.66	I
Repairing of machinery and implements	45	32	23	100	2.22	II
Purchasing of machinery and implements	46	29	25	100	2.21	III
Operating of machinery and implements	42	29	29	100	2.13	IV
Regarding driving	7	15	78	100	1.29	V

The data presented in Table 3 observed that control of disease and insect by proper pesticides (2.76) was most needful training need and got first ranked followed by Types of pesticides (2.68), Protection of the stored seeds from pest (2.62), Preparation of solution of pesticides for spraying (2.61), Protective measures and treatment over poisoning (2.49), Methods of proper spraying and dusting (2.27), Types of improved sprayers and dusters(2.20), Disposal of empty bottles and containers (2.02) which ranked II, III, IV, V, VI, VII, and VIII respectively. This finding is supported with Lego *et al.*, (2018), Bassim, (2016), Pandey *et al.*, (2015), Punitha, *et al.*, 2012 and Sarda and Gill (2005).

It was much cleared from the ranks that respondent wants to implements proper plant protection measures in their field.

Regarding farm machinery and implements data presented in Table 4 revealed that regarding getting subsidy and loan (2.66) most needed training followed by repairing of machinery and implements (2.22), purchasing of machinery and implements (2.21), operating of machinery and implements (2.13), regarding driving (21.29) which ranked II, III, IV and V respectively. This finding is supported with Waghmode *et al.*, (2014).

In conclusion, training needs of respondents clearly concluded that majority of the respondents training needs related to fertilizers is vermi composting followed by fertigation and micro nutrients fertilizers, nutrient contents in fertilizers, methods of fertilizer application and in case of seeds, improved varieties and hybrids of different crops, seed treatment, type of seeds, certified seeds. Whereas, related to pesticides it was control of disease and insect by proper pesticides, types of pesticides, protection of the stored seeds from pest, preparation of

solution of pesticides for spraying and lastly, regarding farm machinery and implements it was getting subsidy and loan, repairing of machinery and implements, purchasing of machinery and implements.

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