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Effect of Training Need for Papaya Growers in Begusarai District of Bihar

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ABSTRACT

The present study was undertaken in Begusarai district of Bihar states during 2016-17. The study showed that the respondents (61.67 %) had shown their medium training need, followed by low training need (20.00%) and high training need (18.33%) respectively. And also the findings revealed that training in plant protection measure was given top priority by all the selected papaya growers followed by the area of high yielding variety and the area of manures & fertilizer management respectively. The 'seed treatment' was observed as the 4th rank and its mean score of 2.13, Weed management (5th rank) and its mean score of 2.07 followed by 'marketing and storage' (6th rank) and its mean score of 1.93, sowing methods and sowing time (7th rank) and its score of 1.82, raising seedling (8th rank) and its mean score of 1.78, seed bed preparation (9th rank) its mean score of 1.73. The other important area like transplanting method and time (10th rank), irrigation and drainage management (11th rank), Post harvesting management (12th rank) and marketing & storage (13th rank) indicating mean score 1.62, 1.6 and 1.58 respectively. Regarding the plant protection measures the study revealed that papaya growers wanted to identification of major insect pests and diseases as first rank followed by awareness about use of various insecticides and pesticides and residual effect of insecticides and pesticides as 2nd and 3rd rank respectively.

Key word: *Training need, Papaya training need, Effect of training on papaya production.*

INTRODUCTION

Cultivation of fruits played a pivotal role in diversification of agriculture along with food and nutritional security of ever growing population. The agro-climatic conditions of Bihar are eminently suitable for fruit crops. The state ranks fourth in fruit production and third in vegetable production in the country. Among the fruits, Papaya (*Carica papaya*) occupies a special place. Like banana it is available throughout the year and it is easy to cultivate. It produces more income per unit area only next to banana and has high nutritive and medicinal value. It is also used in pharmaceutical industries, textiles, garment, cleaning paper and adhesive manufacturing, sewage disposal and so on.

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India leads the world in papaya production with an annual output of about 4.958 million tons and area covered by 0.118 million ha. In our country Gujarat is largest papaya producer followed by Andhra Pradesh. Bihar is the 13th rank in papaya production figure almost 0.044 million tons in an area of 2000 ha (NHB, 2014-15). In Bihar Papaya is mainly grown in Vaishali, Samastipur, Begusarai, Patna and Muzaffarpur district. The average yield of papaya in Bihar is lower than national average. The productivity of papaya could be increased considerably if the available technology is effectively transferred to the farmers. Our training programmes need to focus more on transferring of new technology from the confines of laboratories and research institute to the farmers and make then result oriented. Its profitability needs to be enhanced further, but still profitability of papaya growing is based with many constraints faced by papaya growers due to production and marketing. So, therefore, the papaya growers need to be properly trained in the latest improved cultivation practices for realizing more productivity and production of papaya. Keeping all these aspects in view, the present study was undertaken to ascertain the training needs of papaya growers in the main areas of training with respect to improved papaya cultivation and to know the training needs of papaya growers in the sub-areas of plant protection measures. Kumari and Laxmikant[1] studied that the maximum 61.66 per cent of the respondents belonged to middle age group (36-50 years) followed to old age group. The data shows that majority of the respondents (88.32%) were young to middle age group. Singh *et al*[5]., reported that the majority of the respondents (71.20%) were found in the extension participation categories of medium farmers followed by high farmers (20.25%) and 8.55 per cent in the low extension participation. Verma *et al*[6]., studied that the first and foremost activity for planning a good programme is to assess the training needs. They should be properly trained according to their need so as to be fitted and proficient in performing their job, which would help in increasing production. The farmers were expressed their training needs on plant protection followed by fertilizer management, nursery raising, marketing management and field management. It also indicated that more than three-fifth of the marigold growers (61.66 percent) were fall under medium group, while 20.00 percent and 18.34 percent of the marigold growers were categorized under high and low groups of training needs respectively. Verma and Ansari[7] revealed that training in plant protection measure was given top priority by all the selected potato growers followed by the area of high yielding variety. The seed treatment was as served as the third rank area related with the training need among the potato growers followed by sowing method and sowing time. The manures and fertilizer management, irrigation and drainage and weed management were consequently observed as the important relative needs areas for training among the potato growers as per order of the merit indicating their average mean score of 2.38, 2.31 and 1.88, respectively. Regarding the plant protection measure the study revealed that potato growers wanted awareness about use of various insecticide and pesticide, identification major insect pest and disease, cause of spread and also about time and method of control.

MATERIALS AND METHODS

Begusarai district of Bihar state has been identified as a locale of present research enterprise in view of its importance in terms of area and total production of papaya crop in the state. There are 18 block in Begusarai district. Out of 18 blocks, five blocks which had maximum area under papaya cultivation, was selected. Out of these five blocks, two villages from each block, having maximum area under papaya was selected. So in all ten villages was selected as sample villages for this study. Six papaya growers were taken from each of the selected village. Thus a total number of 60 papaya growers was constituting as the sample for the present study. For collection of relevant data, a personal interview schedule was specially structured and prepared in order to

get the desire response of farmers in face to face situation. The data were analyzed using various statistical tools such as frequency, percentage, mean score, standard deviation and ranking. Sharma[4] revealed that majority of the marigold growers have 64 % training needs. The farmers were expressed their aspects wise training on plant protection, nursery raising, fertilizer management, field management and marketing management. Correlation analysis revealed that education, farm size, annual income, decision making behaviour, risk orientation, marketing orientation were found positively and significantly correlated with training needs, whereas age, caste was found non-significant with the training need of marigold growers. Maneria *et.al*[2]., found that majority of respondents i.e. 62.50 per cent fall under the medium level of training needs group while 20.83 per cent were kept under high training need groups and remaining 16.67 per cent possessed low level of training need about soybean production technology. Naik[3] reported from his study that 43.34 per cent of the groundnut farmers fell in medium training needs category followed by high (29.33%) and low (27.33%) categories.

RESULTS AND DISCUSSION

The results of the present study as well as relevant discussions have been presented under following sub heads:

Training needs of papaya growers in overall components of training:

The information related to training needs of papaya growers was collected, tabulated and analyzed. The scores of training need on cultivation of papaya growers ranged from 20 to 31, with an average of 24.98 and standard deviation of 2.64. On the basis of their scores, the papaya farmers were classified into three categories as low (< 22.34), medium (22.34 to 27.62), high (> 27.62). The results are presented in table-1

Table 1: Distribution of papaya growers according to training needs

Sr. No	Categories	f	%
1	low (< 22.34)	12	20
2	Medium (22.34 to 27.62)	37	61.67
3	High (> 27.62)	11	18.33
	Total	60	100

Mean = 24.98, S.D = 2.64

The result related to the Table- 1 revealed that a majority of (61.67 percent) respondents had come under medium needed training category, whereas the 20.00 per cent respondents was felled in low needed category whereas remaining 18.33 per cent respondent had high need of training in papaya cultivation. Since the farmers were found to be medium educated, having medium extension contact, were medium in economic motivation, and high risk preference, small and marginal farm holdings, the requirement of training needs were found to be in high category. Therefore, the government need to concentrate more on conduct of the need based training programmes by including the course content based on the identified main areas in order. Establishment of extension-cum-training centres at district level and their intensive efforts in extending their services to the farmers is the need of the hour.

Training needs of papaya growers in the main areas of training:

The relative training needs of farmers in the thirteen main areas of training with respect to the improved papaya cultivation as perceived by the respondents have been presented here in Table-2 and Figure- 1.

Table 2: Training needs (in rank-wise) of papaya growers in the main areas of training

Sr. No.	Main areas of training	Mean score	Rank
1	High yielding varieties	2.72	II
2	Seed treatment	2.13	IV
3	Sowing methods and sowing time	1.82	VII
4	Seed bed preparation	1.73	IX
5	Raising seedling	1.78	VIII
6	Transplanting method and time	1.62	X
7	Manures & fertilizer management	2.15	III
8	Irrigation and drainage management	1.6	XI
9	Weed management	2.07	V
10	Plant protection measures	2.77	I
11	Harvesting	1.47	XIII
12	Post harvesting management	1.58	XII
13	Marketing and storage	1.93	VI

On perusal of the Table-2 and figure-1 it can be observed that the plant protection measures have got the first rank and top most required need for the training indicating its mean score of 2.77, while 'high yielding varieties' got the second rank and its mean score of 2.72, followed by the area of 'manures & fertilizer management' which received the 3rd rank during the course of study having its mean score of 2.15. The 'seed treatment' was observed as the 4th rank and its mean score of 2.13, weed management (5^{th} rank) and its mean score of 2.07 followed by 'marketing and storage' (6^{th} rank) and its mean score of 1.93, sowing methods and sowing time (7^{th} rank) and its score of 1.82, raising seedling (8^{th} rank) and its mean score of 1.78, seed bed preparation (9^{th} rank) its mean score of 1.73. The other important area like transplanting method and time (10^{th} rank), irrigation and drainage management (11^{th} rank), post harvesting management (12^{th} rank) and marketing & storage (13^{th} rank) indicating mean score 1.62, 1.6 and 1.58 respectively.

These areas were considered as most needed areas among the papaya growers. In fact, papaya crops are often affected by certain disease and pest. So, it was the obviously reason to perceived the first priority of the area of papaya protection. Higher yielding variety was considered as the next important area in which farmer were having little scope to know therefore thy have recognized it as an important area of training needs.

Similar was the situation in the other areas of their relative needs for training in which papaya growers given their preferences in order of their ranking.

Training need of papaya growers in the sub-areas of plant protection measures:

The result related with relative need for training in the sub-areas of plant protection measures of papaya are given in Table-3.

Table 3: Training need of papaya growers in the sub-areas of plant protection measures

Sr.No.	Plant protection measures	Mean score	Rank
1	Identification of major insect pests and diseases	2.85	I
2	Cause of spread	2.57	IV
3	Time and method of control	2.47	VI
4	Awareness about use of various insecticides and pesticides	2.7	II
5	Preparation of pesticides solution	2.52	V
6	Handling of plant protection implements	2.25	VII
7	Residual effect of insecticides and pesticides	2.63	III

The results displayed in Table-3 indicates that selected papaya growers perceived the area training as first most needed in the sub-areas of identification of major insect pests and diseases for cultivation and they were needed most of training in this area indicating its mean score of 2.85. The sub-areas of awareness about use of various insecticides and pesticides and residual effect of insecticides and pesticides which rank 2nd & 3rd and received mean scores of 2.70 and 2.63 respectively. The sub-area related with 'cause of spread' was observed as the 4th most needed indicating its mean value of 2.57 followed by 'preparation of pesticides solution' as the 5th rank indicating its mean score of 2.52. In the sub-areas of 'time and method of control' the papaya growers expressed their training requirement as the six most needed having its mean score of 2.47. The papaya growers have shown their least requirement of training need in the sub-area of 'handling of plant protection implements' indicating its mean score of 2.25. Among different aspects of identification of plant protection, control of diseases has always possessed a major challenge before the papaya growers. Once the disease appears on the crop the yield is drastically reduced. It is therefore, natural that papaya growers felt the need for training in measure to control the disease.

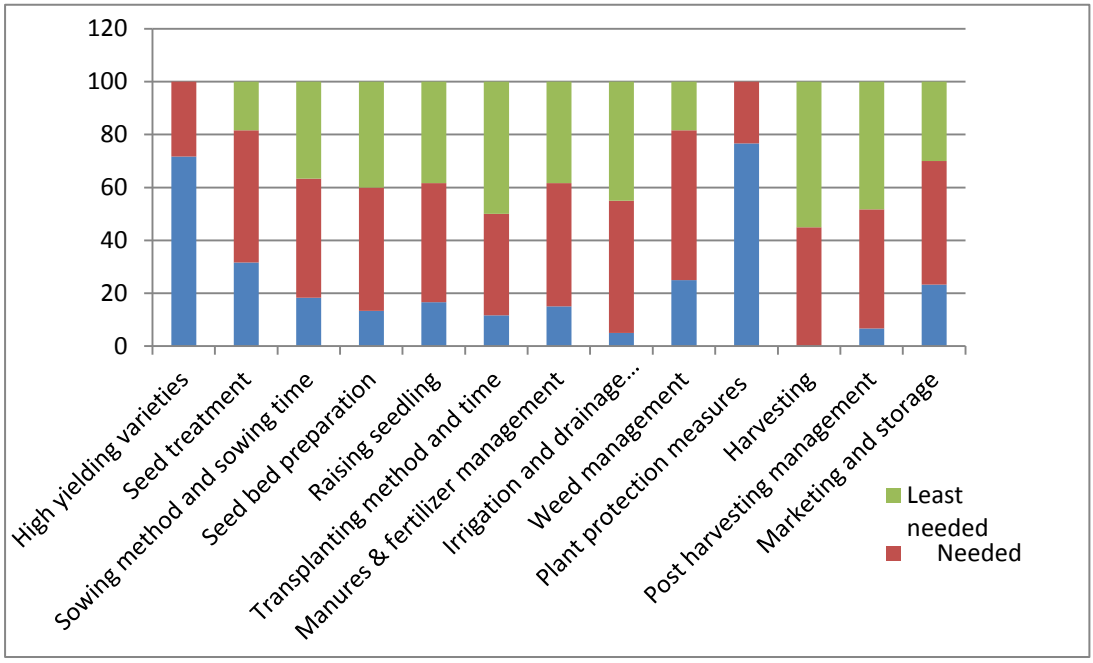

Fig. 1: Distribution of papaya growers according to their main areas of training needs

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