

Training Needs of KVK Personnel and Farmers of NEH Region in Horticulture

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ABSTRACT

North East Hill (NEH) Region has adequate potential for developing horticulture. To enhance productivity and profitability in horticulture in this region, it is imperative to train the farmers. Krishi Vigyan Kendras (KVKs), the main outreach arm of ICAR train the farmers on need-based themes. There are 78 KVKs functioning in NEH region. To enhance the expertise of the KVK personnel in horticulture, it is necessary to train them regularly. To train the farmers and KVK personnel in NEH region in horticulture, there is a need to assess their training needs. With this view, a questionnaire survey was conducted with KVK personnel (42) to assess their training needs and the training needs of farmers as perceived by KVK personnel in NEH region. The results of the survey were analyzed to arrive at meaningful conclusions. The results are presented in this paper for sensitizing the training organizations in order to design effective training modules for stakeholders of NEH region in Horticulture.

The North East Hill (NEH) region of India comprises Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim, which have vast physiographical variations, representing six agro-climatic zones. NEH region is one of the richest reservoir of genetic variability and diversity of horticulture crops such as fruits, vegetables, spices, ornamental plants and also medicinal & aromatic plants.

To enhance the productivity and profitability of horticulture in NEH region, it is imperative to introduce advanced horticulture production technologies through training programmes targeting both extension personnel such that of Krishi Vigyan Kendras

(KVKs) and farmers. Nongtdu *et al* (2012) suggested that necessary steps should be taken to identify the unfelt needs of the extension personnel of Assam to strengthen their knowledge, skills and attitudes required for performing their job efficiently. Sajeev and Singha (2012); Sajeev, Singha and Venkatasubramanian (2012) emphasized that KVKs have to re-orient their training programmes based on needs of farmers to reduce the existing technological and adoption gap in Arunachal Pradesh and Manipur.

KVKs act as main outreach arm of the Indian Council of Agricultural Research (ICAR) and its constituent institutes. They act as the training centres for transfer of the technology

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with an aim to reduce the time lag between technology generation and their transfer (www.icar.org.in). KVKs regularly organize training programmes for extension personnel and farmers to orient them in the frontier areas technology development. This fact also necessitates that the KVK personnel have to be trained regularly on need-based themes, so that their expertise can be enhanced. Hence, it is imperative to assess the training needs of the KVK personnel, in order to design and implement effective training modules.

The Division of Extension and Training, ICAR-Indian Institute of Horticultural Research (IIHR) has been involved in training and extension activities of the institute apart from research on popularizing horticulture technologies through innovative extension methodologies. It is the endeavour of the division to keep in tune with the technological requirements in horticulture and the latest developments in the field of information technology and accordingly various training programmes are being regularly conducted in the division (www.iihr.res.in). To design and implement effective training modules to suit the needs of the stakeholders, the Division assess regularly, the training needs of stakeholders such as farmers, extension personnel including that of KVKs and NGOs, entrepreneurs, industry representatives, students, farm women, rural youth etc.

METHODOLOGY

To assess the training needs of KVK personnel in NEH region and their perception

towards training needs of farmers of NEH region, a questionnaire was constructed. The questionnaire was constructed in consultation with the scientists, who have working experience in NEH region previously, so that they can give relevant ideas including the themes/ areas of training based on the prevailing conditions of NEH region such as horticulture crops grown, the issues faced by the farmers and the kind of training programmes needed by the extension personnel serving in NEH region.

This questionnaire was administered among the KVK personnel of 25 KVKs of NEH region, who participated in a review meeting of NEH programme of ICAR-IIHR during March 2015. These KVK personnel were contacted in person and the questionnaire were distributed to them. Fifty KVK personnel representing 25 KVKs (two from each KVK) were contacted. Out of the 50, 42 KVK personnel representing 21 KVKs) responded and returned the questionnaire. The responses of KVK personnel from same KVK were considered as single response. Thus, there were responses from 21 KVKs (questionnaires). The responses from these questionnaires were tabulated and analyzed using percentage analysis and average to arrive at meaningful conclusions.

FINDINGS AND DISCUSSION

Training needs of KVK personnel of NEH region

Protected cultivation, value addition of horticultural produce, mushroom production

technology, integrated pest management, integrated disease management, farm mechanization and vegetable seed production were the major training needs of the KVK personnel of NEH region as these needs had percentage more than the overall average value (45.5%) (Table 1). Protected cultivation, value addition of horticultural produce,

mushroom production technology, farm mechanization and vegetable seed production are the emerging themes in horticulture owing to the increasing demand for both fresh and processed horticultural products. Hence these themes had better response as training needs by the KVK personnel.

The themes in horticulture such as organic

Table 1.
Training Needs of KVK Personnel of NEH Region in Horticulture (n=21)

Sl.No	Topics	Percentage
1.	Protected cultivation	66.7
2.	Value addition of horticultural produce	61.9
3.	Mushroom production technology	61.9
4.	Integrated pest management	57.1
5.	Integrated disease management	57.1
6.	Farm mechanization	52.4
7.	Vegetable seed production	47.6
8.	Organic cultivation	42.9
9.	Vegetable production technology	38.1
10.	Production of medicinal and aromatic plants	38.1
11.	Integrated nutrient management	38.1
12.	Ornamental crop production technology	33.3
13.	Nursery management techniques	33.3
14.	Integrated water management	33.3
15.	Fruit crops production technology	33.3
16.	Canopy management techniques	33.3
	Average	45.5

cultivation, vegetable production technology, production of medicinal and aromatic plants, integrated nutrient management, ornamental crop production technology, nursery management techniques, integrated water management, fruit crops production technology and canopy management

techniques etc. are routine to the KVK personnel and they might have already undergone training in these themes. Also, they are already organizing training programmes for the farmers on these themes. Hence, the training needs of these themes were less than the overall average value.

Training needs of farmers of NEH region as perceived by KVK personnel

It could be understood from Table 2 that integrated pest management, vegetable production technology, integrated nutrient management, integrated disease management,

nursery management techniques, fruit crops production technology and vegetable seed production are the themes that were perceived by KVK personnel as the training needs of farmers of NEH region, as these themes have percentage more than the overall average (51.5%) (Table 2).

Table 2.
Training Needs of Farmers of NEH Region in Horticulture as Perceived by KVK Personnel

Sl.No.	Topics	Percentage
1.	Integrated pest management	71.4
2.	Vegetable production technology	66.7
3.	Integrated nutrient management	66.7
4.	Integrated disease management	66.7
5.	Nursery management techniques	61.9
6.	Fruit crops production technology	57.1
7.	Vegetable seed production	57.1
8.	Farm mechanization	47.6
9.	Value addition	47.6
10.	Mushroom production technology	47.6
11.	Integrated water management	42.9
12.	Canopy management techniques	42.9
13.	Organic cultivation	42.9
14.	Protected cultivation	42.9
15.	Ornamental crop production technology	38.1
16.	Production of medicinal and aromatic plants	23.8
	Average	51.5

Agriculture, in general, in NEH region is by and large being practiced as natural farming. The advanced production technologies of various crops are adopted by the farmers of this region very recently. ICAR institutes, agricultural colleges, development departments and KVKs apply efforts to disseminate improved production technology of agriculture among the farmers, so that the

productivity and profitability of agriculture may be enhanced and thus, the livelihood option of the farmers. This scenario is applicable to horticulture arena too. Hence, the KVK personnel responded that the above-mentioned basic themes in cultivation of horticultural crops as important training needs of farmers of NEH region.

The themes such as farm mechanization, value addition, mushroom production technology, integrated water management, integrated water management, canopy management techniques, organic cultivation, protected cultivation, ornamental crop production technology, production of medicinal and aromatic plants are emerging or advanced themes in horticulture arena. The KVK personnel perceived that the farmers of NEH region must be trained in basic aspects of horticulture first and then, they may be trained in advanced/ emerging themes. Hence, their response towards the above-mentioned themes has less percentage than the overall average.

CONCLUSION

NEH region has adequate potential for horticulture development. The productivity and profitability of horticulture crops in this region can be enhanced by disseminating improved production technology among farming community. KVK personnel and farmers of NEH region can be trained in horticultural production technology, so that advanced production technology will be adopted at real farm situations.

From the findings of this study, it can be concluded that Protected cultivation, value addition of horticultural produce, mushroom production technology, integrated pest management, integrated disease management, farm mechanization and vegetable seed production were the major training needs of the KVK personnel. Similarly, integrated pest

management, vegetable production technology, integrated nutrient management, integrated disease management, nursery management techniques, fruit crops production technology and vegetable seed production are the themes that were perceived by KVK personnel as the training needs of farmers of NEH region. Hence, while conducting training programmes in horticultural arena targeting KVK personnel and farmers of NEH region, the above-mentioned themes may be considered, so that the training programmes will be effective producing results under real farm situations.

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