

RESEARCH ARTICLE :

Training for capacity building of extension personnel for improving efficiency of knowledge transfer to farming communities

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SUMMARY : Training is considered as one of the important tools for human resource development (HRD). It has immense potential in transfer and utilization of latest technical know how, leadership development, organization of people, formation of self-help group mobilization of people as well as resources. Training is, thus, a crucial and continuous requirement for human resource development. Training of extension personnel is highly essential for providing latest technical know-how and also for inculcating competence, professionalism and service morale. The present study relates to the training programs organized for extension personnel from different State Departments of Agriculture of the country. The objective of the training programs was to impart knowledge and skills in the improved livestock and horticulture technologies for livelihood security in dry land and arid areas. Majority of the participants of the livestock and horticulture training course 73.33 and 66.67 per cent, respectively rated it as meeting their expectations. Gain in knowledge levels of trainees was observed after exposure to the training courses. A number of new learning areas were mentioned by the trainees which they found had great applicability in their respective areas and farmers would be motivated to adopt them for improved livelihood security.

KEY WORDS:

Training, Capacity building, Efficiency, Knowledge, HRD

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BACKGROUND AND OBJECTIVES

The training of extension personnel contributes directly to the development of human resources within extension organizations. Training is the process of acquiring specific skills to perform a job better (Jucious, 1963). It helps people to become qualified and proficient in doing some jobs (Dahama, 1979). Usually an organization facilitates the employees' learning through

training so that their modified behaviour contributes to the attainment of the organization's goals and objectives. Van Dorsal (1962) defined training as the process of teaching, informing, or educating people so that (1) they may become as well qualified as possible to do their job, and (2) they become qualified to perform in positions of greater difficulty and responsibility. Hayward (1990) identified training as one of the key factors in

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implementing extension and observed that extension design and planning should include training for all staff at all levels as a basic mechanism for inculcating competence professionalism and service morale. The present study highlights the perceptions of the development personnel about the utility, mode of conduct and the knowledge gain on attending the two training programs organized on improved livestock management technologies for livelihood security in dry land and arid areas and arid horticulture and value addition for livelihood security in dry land and arid areas. The objective of the training programs was to impart knowledge and skills in improved livestock management and improved horticultural technologies to extension personnel for efficient transfer of knowledge to farming communities.

RESOURCES AND METHODS

The findings of the present study relate to the two training programs organized for development personnel (Agricultural officers, Assistant and Deputy Directors of Agriculture) of the State Department of Agriculture, representing different states of the country. The training programs were conducted by the Division of Transfer of Technology, Training and Production Economics of the Central Arid Zone Research Institute, Jodhpur, Rajasthan. The training programs were sponsored by the Directorate of Extension, Ministry of Agriculture, Government of India. Training has to start with the identification of training needs through job analysis, performance appraisal, and organizational analysis. Once the training needs of extension personnel have been identified, the next step was to organize training programmes. The training needs of the participants were assessed on the first day of the training program and accordingly the suggested topics were included in the training schedule.

A training programme has a better chance of success when its training methods are carefully selected. A training method is a strategy or tactic that a trainer uses

to deliver the content so that the trainees achieve the objective (Wentling, 1992). Selecting an appropriate training method is perhaps the most important step in training activity once the training contents are identified. In the present study a combination of training methods like lecture by subject matter specialists, field visits and hands-on practical sessions were employed to improve the knowledge and skills of the participants. In order to assess the change in knowledge level of participants on exposure to training programme a pre and post training exposure knowledge test was designed based on the contents of the subject matter of training and administered to the participants.

OBSERVATIONS AND ANALYSIS

Refresher training is offered to update and maintain the specialized subject-matter knowledge of the development personnel who are in service for a few years. This refresher training keeps the specialists, subject-matter officers, extension supervisors, and frontline workers updated and enables them to add to the knowledge and skills they have already. It usually deals with new information and new methods, as well as review of older materials. This type of training is needed both to keep employees at the peak of their possible production and to prevent them from getting into a rut (Van Dorsal, 1962).

Majority of the participants of the livestock and horticulture training course 73.33 and 66.67 per cent, respectively rated it as meeting their expectations. The participant’s of both the training courses were satisfied to a limited extent with the lodging facilities and also suggested for including more practical sessions in the course. The findings in the Fig. 1 and 2 reflected the gain in knowledge levels of trainees was after exposure to the training courses. Similar findings of gain in knowledge as a result of exposure to training programs have been reported by Sharma and Mahajan (2004), Tomar and Tiwari (2006), Dudi and Singh (2008) and Waris (2009). The eight days training on

Table 1 : Extent of fulfilment of participant’s expectations about livestock and horticulture training courses

Sr. No.	Degree of expectations fulfilled	Livestock		Horticulture	
		Frequency	Percentage	Frequency	Percentage
1.	To the great extent	10	66.67	8	66.67
2.	Somewhat extent	5	33.33	4	33.33
3.	To a little extent	0	0.00	-	0.00
4.	Total	15	100.00	12	100.00

improved livestock management and technologies for livelihood security in dry land and arid areas was perceived to be at the right time by majority of the participants.

The major learning's as prioritized by participants of livestock training :

- Use of local feed resources
- Shelter management of livestock
- Processed products from goat milk.
- Cultivation of fodder crops
- Nutritional quality of goat milk
- Making of feed blocks
- Role of pro-biotics
- Importance of rangeland management

The major skills acquired as reported by trainees :

- Preparation of multi-nutrient feed block
- Disease management
- Shelter management
- Reproduction management
- Processing of goat milk

Relevance of course to improve job performance :

- Awareness about shelter management
- Processing technology of goat milk
- Fodder cultivation
- Motivating farmers to use multi-nutrient feed block

Major feedbacks received from participants about horticulture training course :

The eight days training on arid horticulture and value addition for livelihood security in dry-land and arid areas was perceived to be at the right time by majority of the participants.

The major learning's as prioritized by the trainees:

- Production techniques of ber, aonla, and pomegranate.
- Processing and cultivation of aloe vera
- Processed products from aonla, ber and pomegranate.
- Cultivation techniques of mushroom, seed spices and date palm-exposure to lesser known fruit

Table 2 : Participant's feedback on physical facilities provided by the host institute

Sr. No.	Item	Degree of satisfaction					
		Fully satisfied		Satisfied to limited extent		Not satisfied	
		Livestock	Horticulture	Livestock	Horticulture	Livestock	Horticulture
1.	Lodging arrangement	33.33	91.67	20.00	-	33.33	8.33
2.	Classroom and lab facilities	92.80	100.00	7.14	-	-	-
3.	Transport facilities	64.20	100.00	26.70	-	-	-
4.	Boarding facilities	20.00	91.67	7.14	8.33	64.20	-
5.	Library facilities	20.00	83.33	-	16.67	64.20	-
6.	Recreation facility	20.00	66.67	22.66	25.00	53.33	8.33

Table 3 : Participant's degree of satisfaction with training atmosphere and methodology

Sr. No.	Item	Degree of satisfaction in percentage					
		Fully		To a limited extent		Not at all	
		Livestock	Horticulture	Livestock	Horticulture	Livestock	Horticulture
1.	Atmosphere	66.70	100.00	13.33	-	-	-
2.	Medium of instruction	66.70	100.00	13.33	-	6.76	-
3.	Training method	46.66	91.67	40.00	8.33	-	-
4.	Use of AV aids	66.70	100.00	20.00	-	-	-
5.	Timely information of day to day activity	53.43	100.00	33.33	-	-	-
6.	Duration of programme	73.33	75.00	13.30	16.67	-	8.33
7.	Relevance of content	53.43	75.00	33.33	25	-	-
8.	Adequacy of content	60.00	83.33	26.70	16.67	-	-
9.	Sequencing of content	60.00	75.00	26.70	25.00	-	-
10.	Practical orientation	40.00	66.67	46.66	25.00	-	8.33

crops like karonda, khejri

- Use of drip and sprinkler in fruit and vegetable crops
- Management of pest, diseases and nematodes in fruit crops
- Role of water bodies and water harvesting techniques in rainfed orchard
- Importance of medicinal plants
- Rodent management in horticultural crops

The major skills acquired as reported by participants :

- Preparation of ber jam, aloe vera pickle, pomegranate squash and aonla candy
- Water conservation techniques in horticultural plants
- Mushroom cultivation
- Production technologies of seed spices
- Processing of aloe vera

Relevance of course to improve job performance :

- Awareness about horticultural crops and cropping systems in arid areas
- Processing technology of ber, aonla, pomegranate, aloe vera
- Mushroom cultivation for income generation
- Motivating farmers to adopt locally suitable and economically important arid fruit crops like aonla, bael to improve their socio-economic status.

Evaluation of training programmes :

In order to evaluate the effectiveness of the training programs, Kirkpatrick (1976) suggested four criteria to evaluate them (1) reaction, (2) learning, (3) behaviour, and (4) results. Each criterion was used to measure the different aspects of a training programme. Reaction measures how the trainees liked the programme in terms of content, methods, duration, trainers, facilities, and management. In the present study, the evaluation of the trainees in terms of the reaction component has been presented in the Tables 1 to 3. Learning measures the trainees' skills and knowledge which they were able to absorb at the time of training, this criteria of training evaluation has been measured by administering a knowledge test to the trainees before and after exposure to the training program as depicted in Fig. 1 and 2.

Behaviour is concerned with the extent to which the trainees were able to apply their knowledge to real

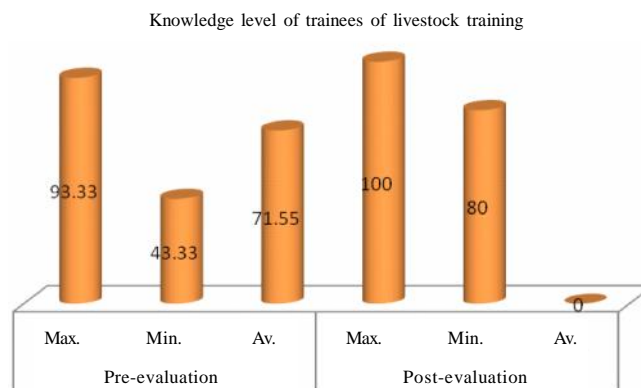


Fig. 1 : Knowledge level of trainees of improved livestock training program

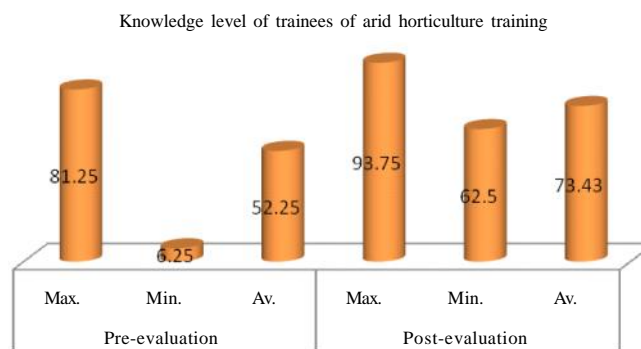


Fig. 2 : Knowledge level of trainees of arid horticulture and value addition training program

field situations. Results are concerned with the tangible impact of the training programme on individuals, their job environment, or the organization as a whole. However, these two criteria of training evaluation are the most important and need to be undertaken to have an understanding of the practical applicability and utility of the knowledge and skills acquired during the training course by the participants in their respective work places.

Conclusion :

The refresher training keeps the specialists, subject-matter officers, extension supervisors, and frontline workers updated and enables them to add to the knowledge and skills they have already. Majority of the participants of the livestock and horticulture training course 73.33 and 66.67 per cent, respectively rated it as meeting their expectations. The participant's of both the training courses were satisfied to a limited extent with the lodging facilities and also suggested for including more

practical sessions in the course. The findings of the present study have confirmed that the training programs have updated and also resulted in gain in knowledge of the participants. In order to make the training programs oriented towards imparting skills, more practical session may be planned by the training organizers as suggested by majority of the participants.

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