TRAINING NEEDS OF FARMERS IN SHIWALIK HILLS OF JAMMU AND KASHMIR

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ABSTRACT

'Seed rate' ,'method of sowing' and 'seed treatment' ,'optimum dose of fertilizers' ,'fertilizers based on soil test recommendations ','identification of pests and their control measures' ,'identification of insects and their control measures', 'scientific methods of weed control', 'techniques of safe storage', 'proper use of rain water' and 'leveling- bunding- terracing', were the subject matter areas which were perceived by the farmers as more important training aspects in agriculture production technology whereas under dairy farming technology areas like 'performing artificial insemination' 'enrichment of poor quality roughages' 'deworming and dehorning of calves', 'care and management of pregnant animals before after parturition' 'raising and preserving green fodder through out the year', 'detection of heat and pregnancy diagnosis in animals' , 'care and feed for newly born calves' and 'identification of sick animals and their treatment' were considered as more important training needs.

Key Words: Training needs, Agriculture production technology, Dairy production technology, subject matter areas, mean scores

INTRODUCTION :

Training assumes a special recognition in view of growing sophistication in agriculture and allied technology. However, no training programme would bring desirable changes in the knowledge, attitude, practices and other behavioural aspects unless it is a need based programme. In order to make a training more meaningful and effective, the training needs of the farmers have to be identified prior to the training programmes are finalized, so that the specific subject matter of training could be determined and prioritized on the basis of needs of the farmers. Shiwalik hills of Jammu province locally known as *Kandi* belt which is mostly attributes with scarcity of water, lithosol nature of soil and steep slope of the area. The *Kandi* belt is spread on an area of 12 per cent of the total 26,395 Km2 area of Jammu. Wheat, maize, jowar bajra and mash are most important crops of the area in terms of acreage and production. However, the yield of these crops is very low, averaging 8 quintals per hectare for wheat and 10 quintals per hectare for maize as compared to the corresponding figures of 12 and 18 quintals, respectively for Jammu province as a whole. Lack of awareness of farmers regarding latest agricultural know-how and do-how may be one of the important causes of low productivity which can be mitigated by improving practices of the farmers through need based training interventions. This all therefore clamored the attention of authors to undertake an investigation regarding the assessment of training needs of the farmers of the Kandi belt of Jammu region.

METHODOLOGY :

The training needs of the farmers have been operationalized as felt need regarding various subject matter areas of agricultural production and dairy farming technologies which can be readdressed through specialized training programmes/interventions. In order to collect the data, list of all villages in the area was prepared and 10 villages were selected randomly and 10 farmers from each village making a sample of 100 respondents were selected for the study. Only those farmers were selected as respondents of the investigation who grow predominantly any of the above listed crops. The data were collected through a well structured pretested interview schedule. Training needs of each specific subject matter areas were assessed using a three point rating scale i.e. Most needed, Somewhat needed and Least needed and later it was quantified by assigning the scores as 3, 2 and 1 respectively. Mean scores were used to rate specific subject matter areas. Average mean scores were used to categorize the training needs into more or less important ones. Percentage analysis was carried out for simple comparison.

RESULTS AND DISCUSSION :

The data incorporated in table 1 indicate the mean training need scores and the extent of importance of training need against each component of agricultural production technology. The following subject matter areas were suggested by the respondents according to their importance for training under each major farm practice.

(A) Training needs of farmers in various areas of agriculture production technology

(i) Agronomic practices–The components 'seed rate',' method of sowing' and 'seed treatment' with mean score of 2.20, 2.40 and 2.70 respectively were assessed to be more important for training. The other areas were considered as less important for training. This may be due to the reasons that these aspects were considered to be more important for higher yields by the farmers.

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Table 1. Training needs of farmers in agriculture production technology

S. No.	Farm Practices	Mean Score	Extent of Training Need	Rank
A	**Agronomic Practices**			
1.	Improved varieties	1.64	Less	VI
2	Seed rate	2.20	More	III
3	Sowing time	1.80	Less	IV
4	Method of sowing	2.40	More	II
5	Seed treatment	2.70	More	I
6	Spacing	1.70	Less	V
	Average mean score	*2.07*		
B	**Manures and Fertilizers**			
1	Identification of important fertilizers	1.58	Less	IV
2	Optimum dose of fertilizers	2.88	More	I
3	Time and method of fertilizer application	1.75	Less	III
4	Fertilizers based on soil test recommendations	2.79	More	II
5	Preparation and application of compost/ FYM	1.15	Less	V
	Average mean score	*2.03*		
C	**Plant Protection**		More	
1	Identification of pests and control measures	2.73	More	I
2	Identification of insects and control measures	2.71	More	II
3	Preparation of spray solution and application	2.68	Less	III
	Average mean score	*2.70*		
D	**Weed control**			
1	Identification of weeds	2.18	More	I
2	Knowledge of herbicides	2.11	More	III
3	Preparation of spray solution and application	2.02	Less	II
4	Inter-culture operations	1.98	Less	IV
	Average mean score	*2.07*		
E	**Soil and water management**			
1	Leveling-bunding-terracing	2.48	More	I
2	Storage and proper use of rain water	2.64	More	II
3	Plantation of local trees/ grasses	2.32	Less	III
	Average mean score	*2.48*		
F	**Harvesting**			
1	Time and method of harvesting	1.80	More	I
2	Processing	1.43	Less	III
3	Storage	1.70	More	II
	Average mean score	*1.64*		

(ii) Manures and fertilizers– The data received on this aspect shows that 'optimum dose of fertilizers', 'fertilizers based on soil test recommendations' were considered as more needed areas with mean score of 2.88 and 2.79 respectively whereas, 'identification of important fertilizers', 'time and method of fertilizer application', 'preparation and application of compost/FYM' were considered as less important training areas.

(iii) Plant protection–It is evident from table 1 that the subject matter areas like "identification of pest and their control measures (2.73)" and "identification of diseases and their control measures (2.71)" were considered more important areas whereas, "preparation of spray solution and its applications (2.68)" found less important training areas. The respondent farmers might have shown high need in above areas because the diagnosis and identification of right cause may be a highly technical and skillful job.

(iv) Weed control–Scientific methods of weed control requires basic skills in identification of weed and knowledge of the herbicides which were denoted as more important training areas by the farmers whereas, 'preparation of spray solution and their application' and 'intercultural operations' were the areas in which farmers were less desirous of training. Since the farmers of the study area were still operating with the traditional methods of weed control and were least aware of technical skills involved in chemical weed control.

(v) Soil and water management–The data on the aspects of soil and water management shows that the 'techniques of storage' and 'proper use of rain water' and 'leveling-bunding terracing' were rated as more required training areas.

(vi) Harvesting and storage–Though all the aspects under harvesting and storage show comparatively less mean training need values, the farmers felt the need of training programme in respect of specific areas like 'time and method of harvesting' and 'storage of seeds and grains'. This may be because of the reason that advance technology is being generated in these areas, therefore, farmers showed their interest to get updated with the latest developments in the area.

(B) Training needs in Dairy farming technology :

Besides organizing training programmes for farmers on crop production technologies, there is a need to make them abreast regarding up-to-date knowledge on various aspects of animal husbandry through trainings, field days, film shows, livestock shows and exhibitions etc. Keeping in view above facts, 12 important dairy farming practices were identified for ascertaining the need for bringing improvement through training intervention. It is evident from table 2 that on the basis of average mean score the practices such as 'performing artificial insemination' (2.58), 'enrichment of poor quality roughages' (2.27), 'deworming and dehorning of calves' (2.20), 'care and management of pregnant animals before after parturition' (2.17), 'raising and preserving green fodder through out the year' (2.15), 'detection of heat and pregnancy diagnosis in animals' (2.14), 'care and feed for newly born calves' (2.13) and 'identification of sick animals and their treatment' (2.10) were rated as more required training areas whereas 'protection of animals from cold and heat' (1.75), 'cattle feed and their nutritive value' (1.88), 'balanced feeding and management of animals' (1.94), 'clean milk and proper milking methods'(1.95) were perceived as less important training areas.

Table 2. Training needs of farmers in dairy production technology

S. No.	Dairy Practices	Mean Score	Extent of Training Need	Rank
1	Cattle feed and their nutritive value	1.88	Less	XI
2	Balanced feeding and management of animals	1.94	Less	X
3	Detection of heat and pregnancy diagnosis in animals	2.14	More	VI
4	Performing artificial insemination	2.58	More	I
5	Care and maintenance of pregnant animals before and after parturition	2.17	More	IV
6	Care and feed for newly born calves	2.13	More	VII
7	Deworming and dehorning of calves	2.20	More	III
8	Identification of sick animals and their treatment	2.10	More	VIII
9	Protection of animals from heat and cold	1.75	Less	XII
10	Raising and preserving green fodder throughout the year	2.15	More	V
11	Enrichment of poor quality roughages through various techniques	2.27	More	II
12	Clean milk production and proper milking methods	1.95	Less	IX
	Average mean score	2.10		

Opinion of farmers regarding training programme organization :

The training needs of the farmers are not only concerned with contents of the training programme. In addition, a need based training programme has to be in accordance with the choice of the farmers in terms of time, duration, place and methodology required for the training. in view of this the respondents of the investigation were asked to give their preferences on all these aspects. The data are presented in table 3.

(i) Time of training – As regards the time of training as many as 78 percent of the respondents preferred suitable time for training as 'two to three weeks before the commencement of season/farm activity'.

(ii) Duration of training – The findings of the investigation revealed that vast majority (89%) of the respondents preferred duration of training to be of less than five days and the remaining 11 per cent were in the favour of 7-10 days duration. Hence, it can be concluded that training should preferably be of short duration ranging from two to five days.

(iii) Venue of training – So far as farmers preference about the convenient place of the training is concerned 80 per cent desired training to be organized at village level whereas the remaining 20 per cent preferred sub

divisional and Agriculture University level as the venue of the training.

(iv) Methodology of training– The findings in table 3 showed that majority of the farmers (89%) wanted to be educated in various skills of agriculture and dairy technology through training cum demonstration cum tour method. This exhibits that farmers believe on 'learning while doing' and 'seeing is believing'. Tour provides them an exposure to different and better ideas and experiences which the farmers can put to use in their own field situations for enhancing production. Interestingly non of the farmers preferred to get training through lecture cum discussion method.

Table 3. Preference of farmers regarding time duration, place and methodology of training

S. No.	Aspects	Per cent age
1.	Time of training	
	3-4 weeks before activity	08
	2-3 weeks before activity	78
	1-2 weeks before activity	14
2.	Duration of training	
	7-10 days	11
	3-5 days	68
	1-3 days	21
3.	Place of training	
	Village level	80
	Sub-division level	05
	Agri. University level	15
4.	Methodology of training	
	Training cum demonstration cum tour	89
	Training cum demonstration	11
	Lecture cum discussion	00

CONCLUSION :

The training programmes need to be organized in such a way that a due care required to be taken to incorporate all the subject matter areas having their mean score values geater than the average mean score. This can go a long way in improving the skills and competencies of the farmers in adopting the modern agriculture production and dairy farming technologies, thereby raising the level of production. Also, in order to make the training more effective and efficient, the programmes need to be conducted well in advance before the commencement of the particular activity. Short duration programmes at village situations would be much result oriented. The farmers will be well exposed to different ideas and experiences if they are educated in various skills of agriculture production and dairy technology through training cum demonstration cum tour method.

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