



Training need Analysis of Agricultural Officers of Department of Agriculture Development and Farmers' Welfare Kerala

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ABSTRACT

The present study was undertaken in two zones of Kerala viz., Kannur from North Kerala and Thiruvananthapuram from South Kerala. A sample of 90 Agricultural Officers were randomly selected and information was gathered and analyzed. A well-structured interview schedule was used for data collection from the respondents. Training need analysis was conducted in two dimensions namely agricultural practices and extension. The results revealed that majority of the Agricultural Officers belonged to medium training need group. It was observed that job satisfaction, scientific orientation and facilities at training center were having positive and significant relationship with the training need of Agricultural Officers in agricultural practices and extension at 0.01 level of probability. Job experience and mass media contact having negative but significant relationship with training need of Agricultural Officers in agricultural practices and extension at 0.01 level of probability.

Keywords: Agricultural Officers, Kerala, Training need in agricultural practices, Training need in extension, Training Need Index

INTRODUCTION

Training, the foremost vital input for human resource development, is the integral part of the Training and Visit system of Agricultural Extension. Analyzing the situation and realizing what would be the training needs of the future is a vital prerequisite for any training programme to give an effective impact on the trainees. The training need analysis must be carried out before training activities are organized, since it guarantees the success of those activities. It ensures effectiveness, job performance, and strategic organizational development (Potter *et al.*, 2003).

Agricultural Officers are the key technical personnel and their efficiency in working depends on their ability and competency backed with technical knowledge, understanding, and skills in agriculture and extension discipline. Due to technical breakthrough in agriculture, and for implementation of

various developmental programmes to keep pace with the recent development, the constant periodical training is mandatory for extension functionaries especially with the introduction of block level Krishi Vigyan Kendras /Agricultural Knowledge Centers (AKC). The agricultural officers should prepare production plan of different crops with the support of Scientists of Agricultural university at block level is envisaged in the AKC concept of Kerala (Sreedaya, 2020). Training imparted to the AOs, is unique to each person, depending upon their basic academic and technical qualifications, besides the service, experience and requirement. Sometimes a particular training may not fulfil the requirements of the whole participants attending it.

To offer a systematic training, as already pointed out one should identify the existent training needs of identified areas. It will help to refresh the training modules which were in progress and

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Table 1. Training need of AOs in agricultural practices and extension.

Sr No	Training Need	Total (N=90)	
		TNI	Rank
Seed manures and fertilizers			
1	Improved varieties of important crops and selection of suitable varieties in field situation	90.00	7
2	Seed production	81.48	17
3	Different types of fertilizers	77.78	22
4	Improving soil fertility status with appropriate doses of manures and fertilizers	88.89	9
5	Seed multiplication methods	76.29	25
6	Compost making	75.18	27
Agronomic practices			
7	Preparatory tillage in important crops	68.51	36
8	Methods of nursery raising in paddy	74.81	28
9	Transplanting	69.62	34
10	Chemical weed control	75.56	26
11	Intercultural operations	70.74	33
12	Maturity indices and identifying correct harvest stage of crops	74.07	29
Soil and water management			
13	Different types of soils and their management	81.48	17
14	Soil and water conservation in field situations	78.51	20
15	Importance and drawing of soil samples	72.96	30
16	Water and its management	77.40	23
17	Soil reclamation	84.81	13
18	Water management in important crops	78.51	20
Plant protection			
19	Identification of pests and their control in important crops	96.29	1
20	Identification of diseases and their control in important crops	94.44	3
21	Preparation of different concentrations of spray solutions	88.89	9
22	Spraying techniques	89.62	8
23	Plant protection equipment and their maintenance	83.33	15
24	Integrated pest control	95.18	2
Post harvest technology			
25	Harvesting threshing and drying the agricultural produce	82.59	16
26	Processing of produce	72.59	31
27	Sorting and grading of agricultural produce	71.11	32

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28	Post-harvest technologies of important crops	86.67	12
29	Packaging of agricultural of produce	68.89	35
30	Important food grain storage techniques	80.37	19
General			
31	Understanding and interpretation of meterological data	81.11	18
32	Crop, estimation surveys	77.78	22
33	Use and maintenance of agricultural implements and machinery	77.03	24
34	Orientation on farm planning and contingency planning	84.81	13
35	Diversified farming	84.44	14
36	Agriculture credit and credit institutions	88.51	10
Field extension activities			
37	Selection of farmer groups and contact farmers	83.33	15
38	Procedures to make field visits and extra visits	80.37	19
39	Production recommendations of major crops and their implications	92.96	5
40	Conducting field demonstrations and farm trials, making observations and recording data	90.37	6
Communication and A.V aids			
41	Communication methods and techniques	84.44	14
42	Selection of appropriate communication techniques	78.14	21
43	Planning, preparation, use and evaluation of audio visual aids.	83.33	15
44	Use of extension literature	70.74	33
Management			
45	Basic principles of extension management	72.96	30
46	Effective utilization of available resources	83.33	15
47	Timeliness, feasibility and profitability of production recommendations	84.44	14
48	Time management in field visits	75.56	26
Feedback and follow up			
49	Selecting evaluation criteria	75.18	27
50	Evaluation of field problems	78.14	21
51	Methods of giving feedback about field and operational problems	74.81	28
52	Follow up action to be taken in adoption, partial adoption and non-adoption of recommended practices by farmers	75.92	26
Training activities			
53	Effective participation methodology in fortnightly training sessions	86.67	12
54	Assessing the training needs of farmers	75.92	26
55	Conducting training sessions for farmers	77.78	22

56	Organizing farmers training programmes	90.0	7
Leadership			
57	Identification and making use of opinion leaders and contact farmers in technology dissemination process	87.78	11
58	How to motivate and encourage farmers to adopt recommended practices	93.70	4
59	Human relations	90.37	6
60	Speaking in meetings (public speaking)	84.44	14

to formulate new training modules by the training institutes like KVK, Agricultural Universities, State and Central Agricultural training institutes, NGOs and other training institutes. The identified areas will also implicate the policymakers to fund training programmes on new areas for an effective implementation of technology led extension services by the agriculture department. This is of paramount importance in order to plan strategies for effectively organizing the training programmes in future

MATERIALS AND METHODS

This study was conducted in the two districts of Kerala viz., Kannur from North, Thiruvananthapuram from South Kerala. Totally 90 Agricultural Officers were selected based on random sampling. Ex-post- facto research design was used for the study. A well structured interview schedule was prepared after consultation with the experts in extension and other related fields. Training need analysis of AOs was studied in two dimensions mainly training need in agricultural practices and training need in extension. The scale developed by Prasad (1990) was used for the study. Training need in agricultural practices comprises of 36 statements and training need in extension comprises of 24 statements. Opinions were collected from the respondents for all the 60 training need items, in the different categories of the training needs under agricultural practices and extension. The total score of each respondent on the scale was obtained by adding the score of all items in the scale, the score range was between 60 and 180. Each need item was provided with three response categories

namely High need, medium need and low need and the weightage assigned were 3, 2 and 1 respectively and the training categories were formed based on the mean and standard deviation percentage

Training Need Index (TNI) was computed with the help of following formula. Based on the TNI, the need hierarchy rank was assigned for identification of most needed item.

$$TNI = \frac{\text{Total score obtained}}{\text{Maximum obtainable score}} \times 100$$

RESULTS AND DISCUSSION

Table 1 reveals that training needs of Agricultural Officers in agricultural practices and extension in the following order of ranking. Identification of pests and their control in important crops (96.29)-first rank, integrated pest control(95.18)-second rank, identification of diseases and their control in important crops(94.44)-third rank. It is because, the crop continuously gets effected by pests and diseases and farmers need the help of AOs mainly for identification of pests and diseases. Hence, AOs need to get updated on latest methods for effective control measures. Fourth rank was given to how to motivate and encourage farmers to adopt recommended practices (93.70). In most of the times AOs failed to motivate the farmers to adopt the technologies even though they were thorough with the subjects. Unless the farmers were properly motivated, it is not possible to make them adopt the new practices. Fifth rank was assigned to production recommendations of major crops and their implications (92.96). It was observed

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Table 2. Distribution of respondents based on their total training needs in agricultural practices and extension.

Sr. No.	Category	Frequency (N= 90)	Percentage
1	Low need	15	16.67
2	Medium need	56	62.22
3	High need	19	21.11
	Total	90	100

Range-108-178, Mean- 146.83, SD-21.15

in most of the places of the study area farmers largely depend on the shopkeeper's advice to use chemicals to control pests and diseases. Some innovative farmers were very enthusiastic to try the new varieties of crops which are yet to be released by the Universities, or which are under trial. Hence AOs are likely to get questions from farmers on these aspects and if they are not trained to answer farmer's doubts, their credibility will be lost.

Sixth rank equally distributed to conducting field demonstrations and farm trials, making observations and recording data(90.37) and Human relations(90.37). It is important to raise farmer awareness about new practices. Those new practices must be carried under local condition in collaboration with the farmers. Hence AOs require training in conducting demonstrations. Improved varieties of important crops and selection of suitable varieties in field situation(90.0) and organizing farmers training programmes(90.0) were assigned with seventh rank. Farmers are desire to seek information about new high yielding varieties of different crops to enable them to reap high yields and to get more income and also AOs should have the knowledge on organising farmers training programmes as they are vital in transferring the knowledge and skills of new practices to the farmers. Eighth rank was given to spraying techniques(89.62). Ninth rank was equally distributed to preparation of different concentrations of spray solutions(88.89) and improving soil fertility status with appropriate doses of manures and fertilizers(88.89) followed by Agriculture credit and credit institutions was ranked

tenth(88.51). Remaining training need items were felt less important by AOs and training programmes on these areas can be conducted occasionally to benefit the newly recruited officers. It was observed that AOs need more training in agricultural practices followed by extension.

It also showed that some of the AOs failed to motivate farmers to adopt the recommended practices and disseminate the information of new varieties and other practices. This clearly indicated that, the AOs who were trained in agricultural technologies should also be trained in extension failing which the purpose of Agricultural Extension System (T&V System) cannot be achieved. This findings were in the line with the findings of Mohan *et al* (2020).

The data (Table 2) revealed that majority (62.22%) of the AOs were belonged to medium training need group, whereas 21.11 per cent of the AOs were belonged to high training need group and only 16.67 per cent were belonged to low training need group. This shows that majority of Agricultural Officers require training to the medium extent to update their knowledge. The findings were in line with the findings of Yadav *et al* (2012).

Correlation Analysis

The correlation analysis (Table 3) showed that job satisfaction, scientific orientation and Facilities at the training center were significantly and positively correlated with the training need of AOs in agricultural practices and extension at 0.01 level of probability. Job experience and mass media

Table 3. Relationships of selected characteristics of Agriculture Officers and Training need of AOs in agricultural practices and extension.

Sr. No.	Item	Coefficient of Correlation 'r' Values
1.	Age	0.193 NS
2.	Job experience	-0.387**
3.	Mass media contact	-0.300**
4.	Job satisfaction	0.286**
5.	Scientific orientation	0.375**
6.	Facilities at the training center	0.396**

‘**’ Significant at 1% level, ‘NS’ Non-significant

contact were significantly and negatively correlated with the training need of AOs in agricultural practices and extension at 0.01 level of probability. The correlation analysis shows that, If officer satisfy with the job he will be motivated to carry out the given tasks more efficiently and when he likes to expand the activities he may require more training which might be the reason for the positive correlation between job satisfaction and training need in agricultural practices and extension. It is obvious that officers who had high scientific orientation tend to know the emerging techniques and recent advances in agriculture which might be the reason for positive correlation between the scientific orientation and training need in agricultural practices and extension and also the officers who are more satisfied with the facilities at the training centre had accurate idea about the duties and activities than others naturally desire to go for training to have more work effectiveness as an individual extension worker as it provides opportunities for acquisition of knowledge and skill so this might be the reason for positive correlation between facilities at the training centre and training need in agricultural practices and extension.

CONCLUSION

From the study, it can be concluded that majority of the respondents belonged to medium

training need category in agricultural practices and extension, which needs a lot of improvement. This clearly indicates that, the AOs who are trained in agricultural technologies should also be trained in extension failing which the purpose of Agricultural Extension System (T&V System) cannot be achieved.

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