

Training Need Assessment of Orange Farmers in Wokha Nagaland, India

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Abstract— A research on Training Need Assessment of Orange farmers was conducted in Wokha district, under Nagaland State, the 16th state of India. Wokha district in Nagaland regarded as the land of plenty has wide variations in agro-climatic situation which proves to be favourable for the cultivation of a wide variety of horticultural crops. Total area under Orange cultivation in Wokha district during the year 2017-18 was 680 ha while the total production during the year 2017-18 was 5950.00mt. Three blocks viz., Wokha, Bhandari and Wozhuro were purposively selected. Two villages each for Orange from the above blocks were selected randomly. Furthermore, 15 farmers growing orange from two selected villages were randomly selected making a sample size of 120 respondents. Training Need of Orange farmers was done based on their degree of knowledge level on cultivation practices and the study concluded that training was needed on the importance of application of manures and fertilizers; Irrigation and water management and in crop protection technology. It was also found that, the farmers needed to be oriented with scientific knowledge and technologies of the art and science of growing oranges so as to realize maximum return from their orange orchard.

Keywords— Training, Need, Assessment, Orange, Farmers, Nagaland, Scientific, Orientation.

I. INTRODUCTION

In the field of agriculture, training of farmers essentially contributes to human resource development. Training is a process of acquisition of new skills, attitude and knowledge in the context of preparing for entry in a vocation or improving one's productivity in an organization or enterprise. Effective training requires a clear picture of the trainees need to use information after training in place of local practices they have adopted previously. According to Sajeev and Singha (2010) and Ajayi (1995), "Training is acquisition of the optimal manner of employing knowledge and skill." According to Lynton and Pareek (1990), training is primarily made up of opportunities for participants to develop the requisite knowledge and skills. The goal of farmer training is to increase their productivity in the field. In a developing district like Wokha, training is essential for the development of knowledge and skills of the farmers in agricultural technologies as they are important factors for increased agricultural production. Wokha district in Nagaland regarded as the land of plenty has wide variations in agro-climatic situation which proves to be favourable for the cultivation of a wide variety of horticultural crops. "Total area under Orange cultivation in Wokha district during the year 2017-18 was 680 ha while the total production during the year 2017-18 was 5950.00 mt (Statistical Handbook of Nagaland, 2020)". Some of the popular orange varieties cultivated in the district include Kinnow mandarin and Khasi mandarin. Training needs assessment is one of the major steps in identifying the area of farmer's interest, design and development of curriculum that is relevant to the actual existing conditions of the farmers. According to Meenambigai and Seetharaman (2003), "Training is the most significant factor determining individuals' attitude, productivity, improvement, and risk reduction." "Barbazett (2006) highlighted that the

training institution must decide the who, what, when, where, why, and how of training before any real training is undertaken". "Training needs identification is possible through different analytical procedures (McGhee and Thayer 1961)". The possible methods or techniques for individual analysis include performance appraisal, interviews, questionnaires, tests, analysis of behaviour, informal talks, checklist, counselling, critical incidents, recording, surveys, and observations. Most farmers in Wokha district are not well acquainted with modern methods and technologies in agriculture. Due to this very dearth of a proper grasp of these modern methods, the farmers tend to get frustrated with the new practices in agriculture. This leads to a degree of skepticism amongst the farmers towards those very ideas of modern technology in agriculture which could vastly increase their production. However if improved cultivation practices and a more updated and educated approach to farming through proper and regular training were to augment in the district, Wokha farmers could see timely growth and progress.

Objective: Training Need Assessment of Orange farmers

II. RESEARCH METHODOLOGY

The study was conducted purposively in Wokha district. Three blocks viz., Wokha, Bhandari and Wozhuro were purposively selected. Two villages each for Orange from the above blocks were selected randomly. Furthermore, 15 farmers growing orange from two selected villages were randomly selected making a sample size of 120 respondents.

III. RESULTS AND DISCUSSION

1. Knowledge level of Orange farmers on cultivation practices based on recommended practices

Table 1 revealed that with regard to all dimensions of knowledge, the highest (100.00%) mean knowledge percentage

of orange growers was found in varieties and value added products. The respondents cultivated popular varieties like Kinnow mandarin and Khasi mandarin. Majority (100.00%) orange growers possessed low level of knowledge with regard to manures and fertilizers, irrigation & water management, insect/ pest management and disease management while

majority (66.67%) possessed moderate level of knowledge with regard to land preparation and majority (100.00%) possessed high level of knowledge with regard to varieties and value added products. The Knowledge Index of orange growers was found to be 32.22.

TABLE 1: Knowledge level of Orange farmers based on recommended practices.

N=120

Sl. No.	Dimensions of knowledge	Knowledge level			Knowledge Index	SD
		(Low Knowledge) Less than 50 % Frequency (Percentage)	(Moderate Knowledge) 50% - 75% Frequency (Percentage)	(High Knowledge) More than 75 % Frequency (Percentage)		
1	Land Preparation	10 (33.33)	20 (66.67)	0 (0.00)	32.22	1.36
2	Soil and climate	25 (83.33)	0 (0.00)	5 (16.67)		
3	Varieties	0 (0.00)	0 (0.00)	30 (100.00)		
4	Planting system	16 (53.33)	0 (0.00)	14 (46.67)		
5	Cropping system	25 (83.33)	5 (16.67)	0 (0.00)		
6	Planting time	15 (50.00)	0 (0.00)	15 (50.00)		
7	Planting materials	3 (10.00)	0 (0.00)	27 (90.00)		
8	Spacing	22 (73.33)	0 (0.00)	8 (26.67)		
9	Intercultural operations	3 (10.00)	19 (63.33)	8 (26.67)		
10	Manures and fertilizers	30 (100.00)	0 (0.00)	0 (0.00)		
11	Irrigation & water management	30 (100.00)	0 (0.00)	0 (0.00)		
12	Insect/ Pest management	30 (100.00)	0 (0.00)	0 (0.00)		
13	Disease management	30 (100.00)	0 (0.00)	0 (0.00)		
14	Harvesting and yield	22 (73.33)	8 (26.67)	0 (0.00)		
15	Storage	15 (50.00)	15 (50.00)	0 (0.00)		
16	Value added products	0 (0.00)	0 (0.00)	30 (100.00)		

Therefore, based on their knowledge level the farmers growing orange had training need on the importance of application of manures and fertilizers; Irrigation and water management and in crop protection technology.

2. Scientific orientation

TABLE 2: Distribution of respondents based on their scientific orientation N=120

Sl. No.	Level of scientific orientation	Orange farmers	
		Frequency	Percentage
1	Low (<1.32)	7	23.33
2	Medium (1.32- 23)	9	30.00
3	High (>23)	14	46.67
4	Total no. of farmers	30	100.00
5	Mean	17.5	
6	SD	4.19	

Table 2 showed that nearly half (46.67%) of the orange growers had high level of scientific orientation whereas 30.00 per cent of them had medium level scientific orientation and 23.33 per cent of the growers had low level of scientific

orientation. The mean scientific orientation was found to be at 17.50. Therefore, the farmers need to be oriented with scientific knowledge and technologies of the art and science of growing oranges so as to realize maximum return from their agripreneurship.

IV. CONCLUSION

In this study, Training Need Assessment of the orange farmers was assessed based on the knowledge level on recommended cultivation practices possessed by the farmers whereby it was found that 100.00 per cent of the sample orange growers possessed low level (below 50%) of knowledge with regard to manures and fertilizers, irrigation & water management, insect/ pest management and disease management and hence, considered as the areas needed for training. The farmers also need to be oriented with scientific knowledge and technologies of the art and science of growing oranges so as to realize maximum return from their agripreneurship.

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