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Training need assessment of the farmers in agriculture and allied activities in agency area of East Godavari

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Abstract

Training Need Assessment is a method of determining the need of training, if it does, what training is done to fill the gap. The gap between present status and desired status may indicate problems that in-turn can be translated into a training need. The present study was carried out in 12 adopted villages of Krishi Vigyan Kendra, Pandirimamidi, Rampachodavaram, East Godavari district of A.P. From each adopted village, 10 farmers were selected by simple random sampling method, total constituting to a sample of 120 respondents. As a part of the study, Pre-testing in Bandapalli & Tamarapalli villages of Rampachodavaram division was carried out to finalize interview schedule regarding agriculture & allied activities, used to elicit data from the respondents, collected the information which was subjected to appropriate statistical analysis based on frequency and percentage. Results indicated that Training need assessment on field crops management constituted to a maximum percentage of 95.83 followed by Horticultural crops (86.67%), Poultry rearing (84.17%), Vegetable cultivation (84.17%), Goat rearing (80.83%), Cattle rearing (72.50%), Vermi-compost & NADEP compost preparation (61.67%), Azolla cultivation & Honey bee rearing (43.33%), Fodder cultivation (40.83%), Sheep rearing (32.50%), Fisheries (30.00%) and Floriculture (26.67%). Majority of respondents need training in both theory & practical oriented training programmes in field crops for their betterment which has to be noted.

Keywords: Training Need Assessment, Agriculture and Allied activities, Field crop Management, Horticulture and training programmes

Introduction

Training is an important process of capacity building of individuals as to improve the performance. Assessment of training needs is vital to a training process (Priya and Narayana, 2013). It helps to identify present problems and future challenges to be met through training and development. The farmers are the one who needs improved technologies of various disciplines including agriculture, horticulture and livestock to achieve a high level of production. It is not enough to accelerate generation of scientific technologies but it is equally necessary to transfer the latest technology from the research system to the ultimate users i.e., the farmers (Singh and Singh, 1999). This study stresses the significance of assessment of needs for the farmers to enhance their performance. The need assessment should be based on gaps faced by the farmers. Trainings play an important role in transfer of technology. Systematically arranged training programmes aid in producing desirable changes in the behavior of people. The present study was undertaken to identify the training needs of the farmers in the adopted villages under Krishi Vigyan Kendra, Pandirimamidi. With this background the present investigation was planned with specific objectives;

- To assess the training needs of the farmers in adopted villages of Krishi Vigyan Kendra
- To know the preferences of the farmers about different aspects of training programme.

Methodology

The present study was conducted in 12 adopted villages of Rampachodavaram mandal which were under Krishi Vigyan Kendra, Pandirimamidi, East Godavari district of Andhra Pradesh. Ten farmers from each adopted village were selected for the study by simple random sampling method thus constituting to a sample of 120 respondents. A well-structured and pre-tested interview schedule was used to elicit data from the respondents. Broad areas were developed regarding training needed in major areas of agricultural and allied sciences, viz., major crops in which the farmers need training, crop production, crop protection, horticulture, home science, goat, poultry and fisheries were considered for training need assessment. Further, analysis was done by using frequency and percentage.

Results and Discussion

From the Table 1 results indicate that training needed for the farmers in major areas of the adopted villages is maximum in field crop management (95.83%) followed by Horticultural crops (86.67%), Poultry rearing (84.17%), Vegetable cultivation (84.17%), Goat rearing (80.83%), Cattle rearing (72.50%), Vermi-compost & NADEP compost preparation (61.67%), Azolla cultivation & Honey bee rearing (43.33%), Fodder cultivation (40.83%), Sheep rearing (32.50%), Fisheries (30.00%) & Floriculture (26.67%). Most of the farmers need training in field crops and horticultural crops. Focus area should be more on these two areas.

Table 1: Training needed in major areas in the adopted villages

S.No	Major area	Frequency	Percentage	Rank
1	Field crops management	115	95.83	I
2	Vegetable cultivation	101	84.17	III
3	Horticultural crops	104	86.67	II
4	Floriculture	32	26.67	XI
5	Sheep rearing	39	32.50	IX
6	Goat rearing	97	80.83	IV
7	Cattle rearing	87	72.50	V
8	Poultry rearing	101	84.17	III
9	Fisheries	36	30.00	X
10	Fodder cultivation	49	40.83	VIII
11	Azolla cultivation	52	43.33	VII
12	Honey bee rearing	52	43.33	VII
13	Vermi-compost & NADEP compost preparation	74	61.67	VI

Table 2: Training need assessment in major crops

S.No	Major area	Frequency	Percentage	Rank
1	Redgram, Blackgram, Green gram cultivation & their management practices	99	82.50	II
2	Paddy cultivation practices	112	93.33	I
3	Oilseed crops	54	45.00	V
4	Millet seed cultivation	28	23.33	VII
5	Maize cultivation practices	50	41.67	VI
6	Vegetable crop cultivation (Bhendi, Brinjal, French bean etc)	98	81.67	III
7	Cashew management practices	86	71.67	IV
8	Mango management practices	54	45.00	V
9	Banana management practices	24	20.00	VIII

Table 2 indicates most of the farmers needed trainings in Paddy cultivation practices (93.33%) regarding field crops, as it is the major crop of East Godavari district and the farmers are more keen to know the cultivation aspects of Paddy followed by trainings in cultivation of Redgram, Blackgram, Green gram & their management practices (82.50%), Vegetables area is increasing slowly in agency areas with (81.67%), and the cashew is the major plantation crop which ranked 4th position where in training is needed with a percentage of (71.67%), Mango management practices and

Oilseed crops (45.00%), Maize cultivation practices (41.67%), Millet seed cultivation (23.33%) and Banana management practices (20.00%) respectively. Data from the table 3 related to crop protection shows that most of the farmers need training in Seed treatment (93.33%) followed by Biological control of pests and diseases (84.17%), Integrated Pest management (73.33%) and Integrated Disease management (69.17%) respectively.

Table 3: Training Need Assessment in Crop Protection

S.No	Crop Protection	Frequency	Percentage	Rank
1	Seed treatment	112	93.33	I
2	Integrated Pest management	88	73.33	III
3	Integrated Disease management	83	69.17	IV
4	Biological control of pests and diseases	101	84.17	II

Table 4 indicates farmers need more number of trainings in weed management in different crops i.e. 97.50% (Narukaetal., 2016) followed by Knowledge and source of improved and high yielding varieties (95.00%), Nutrient use efficiency (83.33%), Soil and water conservation (74.17%), Management of problematic soils (73.33%), Nutrition deficiency management (72.50%), Soil test based fertilizer management (64.17%), Integrated nutrient management (46.67%), Soil and water sample collection (45.00%), Demand based cropping pattern (40.00%), Integrated farming (38.33%) and Crop diversification (37.50%) respectively.

Table 4: Training Need Assessment in major areas on various crop management practices.

S.No	Crop Production	Frequency	Percentage	Rank
1	Knowledge and source of improved and high yielding varieties of Groundnut, Redgram, Castor, Bengalgram etc.	114	95.00	II
2	Weed management in different crops	117	97.50	I
3	Soil test based fertilizer management	77	64.17	VII
4	Integrated farming	46	38.33	XI
5	Crop diversification	45	37.50	XII
6	Demand based cropping pattern	48	40.00	X
7	Soil and water conservation	89	74.17	IV
8	Soil and water sample collection	54	45.00	IX
9	Nutrition deficiency management	87	72.50	VI
10	Management of problematic soils	88	73.33	V
11	Integrated nutrient management	56	46.67	VIII
12	Resource conservation technologies	88	73.33	V
13	Nutrient use efficiency	100	83.33	III

Table 5: Training need Assessment in Horticulture

S.No	Major area	Frequency	Percentage	Rank
Vegetable cultivation				
1	Improved and HYVs in major vegetable crops	113	94.17	I
2	Pest and disease management in vegetables	108	90.00	II
3	Nursery raising	91	75.83	III
4	Protective cultivation in Shadenet and poly house	31	25.83	VI
5	Training on grading and standardization	41	34.17	V
6	Export potential vegetables	82	68.33	IV
Fruit cultivation				
1	Cultivation of fruits	104	86.67	I
2	Market facility in various crops	101	84.17	II
3	Pest and disease management in orchard crops	94	78.33	III
4	Training and pruning	65	54.17	VII
5	Management of young orchards	83	69.17	V
6	Micro-irrigation methods in fruit crops	40	33.33	IX
7	Propagation methods	88	73.33	IV
8	Layout and different planting techniques	61	50.83	VIII
9	Rejuvenation of old orchards	77	64.17	VI

Data presented in Table 5 indicates that farmers who are cultivating vegetables need training in Improved and HYVs in major vegetable crops (94.17%), Pest and disease management in vegetables (90.00%). These findings are similar to the observations of Chandawat (1997) and Singh and Singh (1999). Nursery raising stands in the 3rd place where in training is needed with a percentage of (75.83%) and least training is needed in Protective cultivation followed in Shade net and poly house with (25.83%). Farmers need to know short duration and high yielding varieties which are pest and disease resistant in Vegetable cultivation. In fruit crops more trainings are needed in Cultivation of fruits (86.67%) followed by Market facility in various crops (84.17%), Pest and disease management in orchard crops (78.33%) and trainings on Micro-irrigation methods in fruit crops is preferred least by the farmers with a percentage of (33.33%). Results from table 6 reveals that House hold food security by nutrition and kitchen gardening (95.00%), is the first one in need of training in Home science. Trainings will make women farmers to concentrate more on kitchen gardening and try to inculcate the things in a better way. Value addition to millets and fruits constitutes about 87.50% which helps in establishment of the unit and become good entrepreneurs, Storage loss minimization technique (77.50%), Minimization of nutrition loss in processing (76.67%), Children and women care methods (60.00%), Designing/development of high nutrition efficiency diet (55.83%), Income generation activities through vocational training programmes (48.33%), Location specific drudgery reduction technologies (44.17%) respectively.

Table 6: Training need assessment in Home science

S.No	Major area	Frequency	Percentage	Rank
1	Value addition to millets and fruits	105	87.50	II
2	House hold food security by nutrition and kitchen gardening	114	95.00	I
3	Income generation activities through vocational training programmes	58	48.33	VII
4	Location specific drudgery reduction technologies	53	44.17	VIII
5	Children and women care methods	72	60.00	V
6	Designing/development of high nutrition efficiency diet	67	55.83	VI
7	Minimization of nutrition loss in processing	92	76.67	IV
8	Storage loss minimization technique	93	77.50	III

Table 7 (a) shows that Nutrition & Fodder cultivation stands first (70.00%) in goat rearing followed by Seasonal diseases (62.50%), Vaccination against PPR (60.00%), Vaccination against goat pox (56.67%), Scientific rearing (Cleanliness & Management) (51.67%) and Schedule of deworming (47.50%). Findings are similar to Patil and Kokate (2011). Results showed in Table 7 (b) regarding Poultry indicates that Poultry management (93.33%), is the most preferred training need followed by common diseases in poultry (82.50%), Vaccination schedule (80.00%), Nutrition (80.00%) and Azolla as poultry feed (50.83%) respectively. In goat rearing farmers want to know the nutrition and fodder varieties which are required for rearing of goats and seasonal diseases in goat rearing and poultry are needed by the farmers as this helps in knowing the vaccination schedules and to maintain goat and poultry in a better way.

Table 7: Training need assessment in Veterinary discipline**A) Goat rearing**

S.No	Major area	Frequency	Percentage	Rank
1	Vaccination against PPR	72	60.00	III
2	Vaccination against goat pox	68	56.67	IV
3	Schedule of deworming	57	47.50	VI
4	Seasonal diseases	75	62.50	II
5	Nutrition & Fodder cultivation	84	70.00	I
6	Scientific rearing (Cleanliness & Management)	62	51.67	V

B) Poultry

S.No	Major area	Frequency	Percentage	Rank
1	Vaccination schedule (Gumboro, Fowl pox & Ranikhet)	96	80.00	III
2	Poultry management	112	93.33	I
3	Nutrition	96	80.00	III
4	Common diseases in poultry	99	82.50	II
5	Azolla as poultry feed	61	50.83	IV

C) Fisheries

S.No	Major area	Frequency	Percentage	Rank
1	Tank based fish culture	33	27.50	I
2	Management of Fishermen & Women cooperative societies	26	21.67	III
3	Disease management	23	19.17	IV
4	Effective utilization of small water bodies (Murrel fish culture, common carp)	21	17.50	VI
5	Seed rearing	29	24.17	II
6	Feed management	23	19.17	IV
7	Fertilizer & Manure application (cow-dung)	17	14.17	VII
8	Water management	21	17.50	VI
9	Growth & Health management	21	17.50	VI
10	Harvesting & marketing	23	19.17	IV
11	Value addition & post-harvest management	22	18.33	V

Table 7(c) shows that most of the training in fisheries is needed in Tank based fish culture (27.50%), Seed rearing (24.17%), Management of Fishermen & Women cooperative societies (21.67%), Disease management (19.17%), Feed management (19.17%), Harvesting & marketing (19.17%) whereas less percentage of the farmers showed interest in trainings regarding Fertilizer & Manure application (cow-dung) (14.17%)

Conclusion

The present findings conclude that farmers need maximum number of trainings in field crop management i.e. in paddy which is the major crop, weed management, seed treatment aspects are in need of training in different agricultural & horticultural crops. Improved high yielding varieties in Vegetable cultivation, pest and disease management in vegetables and market facilities in fruit crops are the most important training needs identified after the assessment. House hold food security by nutrition and kitchen gardening, Value addition to millets and fruits are the major areas needed for training in home science. Nutrition, fodder cultivation, common diseases in Poultry and Goat rearing are the areas needed in livestock. Tank based fish culture and seed rearing are the areas which the farmers majorly need in fisheries. The emphasis required on medium duration theory and practical oriented training programs for the farmers which help in improvement of their knowledge.

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