

## Research Article

# Training needs of agricultural input dealers in transfer of agriculture technology in Ratnagiri district of Konkan region

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**SUMMARY :** Training need is essential to induce knowledge and skills of any agricultural input dealers about Transfer of Agriculture Technology. The present study was, therefore, designed to ascertain the training needs of agriculture input dealers. The research study was carried out in 9 tahsils of Ratnagiri district in Konkan region of Maharashtra State during 2011-2012. Result of this study revealed that majority (66.67%) of the respondents had 'medium' training need on various aspects of fertilizer, seed, pesticides, machinery and implements, animal feed and chemicals and their use While 18.66 per cent of the respondents had 'more' training need followed by 14.67 per cent of the respondents had 'low' training need. Similarly in case of the various aspects wise training need of the agriculture input dealers it was observed that there were various areas of agriculture input dealers required training need like that 'business management' (88.00%), 'integrated nutrient management' (78.67%), 'improved varieties and hybrids of different crops' (57.33 %), 'efficient use of information technology' (56.00%), also (49.33%) the agricultural input dealers from region had expressed 'most needed' training needs on 'micro nutrient fertilizers' and 'information communication technology' (48.00%). Hence, the study imply that the extension functionaries should arrange training programme and cover the above explained training need areas for agriculture input dealers, that will also help for improving knowledge and communication of transfer of agriculture technology.

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## BACKGROUND AND OBJECTIVES

Agriculture is the backbone of Indian economy since 1960, when this sector was in humble state. Agricultural research and extension are two important factors of agricultural development. An efficient extension system capable of timely dissemination of need based farm technology among farming communities is of paramount importance for achieving sustained growth in agriculture. The system of transfer of technology from research stations to the farming community has played a crucial role in modernizing agriculture. Farmers now required adopting a wider range of inputs and practices and developing skills

for their more efficient use. Keeping this in mind, the policy framework for agriculture extension outlined by the task force on Agriculture Extension, Department of Agriculture and Co-operation, Ministry of Agriculture, GOI recognized the role of multi agency dispensation comprising different strengths. It was also recognized that the policy environment will have to promote private extension to operate in roles that complement, supplement, work in partnership and even substitute for public extension.

The training has to be systematic and a regular event, on a normative basis for all concerned, to keep everybody up to date and

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equipped far a leap forward on the agricultural front. Indeed an input dealer forms an important bridge between the farmers and the agriculture developmental agencies, and is often regarded by the farmers as a “friend, philosopher and guide” and is truly a change agent. Therefore, if he is trained and sincere in his dealings with the farmers, he could definitely prove to be a valuable resource to contribute towards the goal of last mile delivery in the field of agriculture. Therefore, proper training of agriculture input dealers on a normative basis could go long way in transforming the Indian agriculture from subsistence to business activity (Mahajan and Khot, 2000 ; Sarda and Gill, 2005 and Todase, 2010).

The present study was focussed to know the training needs of the dealers in transfer of farm technology and running the agriculture input centre. Keeping in view the importance, scope and statement of problem of the topic, the present investigation entitled ‘training needs of agricultural input dealers in transfer of agriculture technology in Ratnagiri district of Konkan region was undertaken with the following objectives.

- To study the personal and socio-economic characteristics of agricultural input dealers.
- To know the training needs of agricultural input dealers.

## RESOURCES AND METHODS

Konkan region consists of five districts namely Thane, Mumbai, Raigad, Ratnagiri, and Sindhudurg. Ratnagiri district from Konkan region was selected. The Ratnagiri district consists nine tahsil. All tahsil were selected namely, Ratnagiri, Chiplun, Sangmeshwar, Guhagar, Rajapur, Dapoli, Khed, Lanja and Mandangad.

For study purpose, the proprietor of agricultural input dealers was selected as respondents by random sampling. For this study, 75 agriculture input dealers were drawn from selected tahsils of district.

Training needs of the agriculture input dealers was a major aspect of the study. Training needs of the agriculture input dealers was measured by computing training need score. Training need of the respondents was assessed on a three point continuum scale as ‘most needed (2 score)’, ‘needed (1 score)’ and ‘not needed (0 score)’. In order to determine training needs of the agricultural input dealers, a training need index was developed by using following formula :

$$\text{Training need index} = \frac{\text{Score obtained}}{\text{Maximum obtainable score}} \times 100$$

## OBSERVATIONS AND ANALYSIS

The data in respect of personal and socio-economic characteristics of agricultural input dealers indicated that majority (65.33%) of the respondents from region belonged to

‘middle’ age group. More than half (57.34%) of the respondents were ‘graduate’. Majority (97.33%) of the respondents had ‘fertilizer dealing’ as their major occupation. Two-third (66.66%) of the respondents had ‘medium’ annual income. The average annual income of the respondents was Rs. 4, 58,200/-. Majority (74.67%) of the respondents had ‘medium’ experience in fertilizer dealing. The average experience in fertilizer dealing of the respondents was ‘14 years’. Two-third (65.33%) of the respondents had ‘medium’ level of information seeking behaviour. Two-third (66.67 %) of the respondents had ‘high’ level of cosmopolitaness. 52.00 per cent of the respondents had ‘medium’ risk orientation. Over three-fifth (68.00%) of the respondents had ‘medium’ economic motivation. Over one-third (38.67%) of the Konkan respondents had ‘received’ training on various aspects related to fertilizers, seeds, insecticides, pesticides, implements and their use.

### Training needs of the agricultural input dealers :

In order to depict the overall scenario of training need in all areas together, the respondent dealers were grouped into three categories as per the procedure explained in the methodology and is presented in Table 1.

**Table 1 : Distribution of the respondents according to their level of training need (n=75)**

Sr. No.	Training needs	Respondents	
		Number	Percentage
1.	Less	11	14.67
2.	Medium	50	66.67
3.	More	14	18.66
	Total	75	100.00

It is revealed from Table 1 that majority (66.67%) of the respondents had ‘medium’ training need on various aspects of fertilizer, seed, pesticides, machinery and implements, animal feed and chemicals and their use while 18.66 per cent of the respondents had ‘more’ training need followed by 14.67 per cent of the respondents had ‘low’ training need.

It is observed from Table 2 that almost (49.33%) the agricultural input dealers from region had expressed ‘most needed’ training needs on ‘micro nutrient fertilizers’ followed by ‘integrated nutrient management’ (78.67%), ‘improved varieties and hybrids of different crops’ (57.33%), ‘types of improved sprayers and dusters’ (40.00%), ‘information communication technology’ (48.00%), ‘efficient use of information technology’ (56.00%) and ‘business management’ (88.00%). However, the ‘Somewhat Needed’ training need was expressed by them about ‘nutrient content in fertilizers’ (5.33%), ‘methods of fertilizer application’ (10.67%), ‘methods of nitrogenous fertilizer application’ (10.67%), ‘storage fertilizers’ and ‘godown construction’ 22.67 per cent and 12.00 per cent, respectively followed by ‘germination power of seeds of different crop’ (13.33%), ‘viability of seeds of different

**Table 2 : Specific training needs of agricultural input dealers****(n=75)**

Sr. No.	Training areas	Respondents		
		Most needed	Somewhat needed	Not needed
<b>Related to fertilizer</b>				
1.	Type of fertilizers	2 (2.66)	26 (34.67)	47 (62.67)
2.	Soil testing for fertilizer application	7 (9.33)	17 (22.67)	51 (68.00)
3.	Methods of fertilizer application	-	8 (10.67)	67 (89.33)
4.	Micro-nutrients fertilizers	37 (49.33)	36 (48.00)	2 (2.67)
5.	Bio-fertilizers	3 (4.00)	57 (76.00)	15 (20.00)
6.	Methods of nitrogenous fertilizer application	-	8 (10.67)	67 (89.33)
7.	Nutrient contents in fertilizers	1 (1.33)	4 (5.33)	70 (93.33)
8.	Cake fertilizers	-	30 (40.00)	45 (60.00)
9.	Fertigation	2 (2.66)	19 (25.33)	54 (72.00)
10.	Implements used for fertilizer application.	1 (1.33)	29 (38.67)	45 (60.00)
11.	Composting	2 (2.66)	24 (32.00)	49 (65.33)
12.	Vermin-composting	10 (13.33)	41 (54.67)	24 (32.00)
13.	Go-down construction	-	9 (12.00)	66 (88.00)
14.	Fertilizer store	-	17 (22.67)	58 (77.33)
15.	Integrated nutrient management	59 (78.67)	15 (20.00)	1 (1.33)
16.	Fertilizer doses for crops	-	23 (30.67)	52 (69.33)
<b>Related to seeds</b>				
1.	Type of seeds	-	23 (30.67)	52 (69.33)
2.	Improved varieties and hybrids of different crops	43 (57.33)	30 (40.00)	2 (2.67)
3.	Germination power of seeds of different crop	1 (1.33)	10 (13.33)	64 (85.33)
4.	Viability of seeds of different crops	1 (1.33)	9 (12.00)	65 (86.67)
5.	Seed treatment	3 (4.00)	38 (50.67)	34 (45.33)
6.	Ideal seed storage	-	2 (2.67)	73 (97.33)
7.	Certified seeds	-	19 (25.33)	56 (74.67)
8.	Fumigation to seeds	-	7 (9.33)	68 (90.67)
9.	Cultivation of hybrids of different crops	-	1 (1.33)	74 (98.67)
<b>Related to pesticides</b>				
1.	Type of pesticides	1 (1.33)	19 (25.33)	55 (73.33)
2.	Preparation of solution of pesticides for spraying	1 (1.33)	22 (29.33)	52 (69.33)
3.	Types of improved sprayers and dusters	30 (40.00)	38 (50.67)	7 (9.33)
4.	Disposal of empty bottles and containers	-	6 (8.00)	69 (92.00)
5.	Control of disease and insect by proper pesticides	15 (20.00)	54 (72.00)	6 (8.00)
6.	Protective measures and treatment over poisoning	3 (4.00)	5 (6.67)	67 (89.33)
7.	Methods of proper spraying and dusting	9 (12.00)	41 (54.67)	24 (32.00)
8.	Protection of the stored seeds from pest	-	1 (1.33)	74 (98.67)
<b>Related to machinery and implements</b>				
1.	Repairing of machinery and implements	-	40 (53.33)	35 (46.67)
2.	Operating of machinery and implements	1 (1.33)	34 (45.33)	40 (53.33)
3.	Purchasing of machinery and implements	1 (1.33)	25 (33.33)	49 (65.33)
4.	Regarding getting subsidy and loan	2 (2.66)	13 (17.33)	60 (80.00)
5.	Regarding driving	-	19 (25.33)	56 (74.67)

Table 2: Contd.....

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Related to animal feed and chemicals				
a	About animal feed			
1.	Types of feeds	-	9 (12.00)	66 (88.00)
2.	Nutrients content in feeds	-	1 (1.33)	74 (98.67)
3.	Types of feeds for different animals	-	6 (8.00)	69 (92.00)
4.	Doses of feeds for different animals	-	2 (2.67)	73 (97.33)
5.	Storage of feeds for long time	-	1 (1.33)	74 (98.67)
b	About animals chemicals			
1.	Types of chemicals	-	10 (13.33)	65 (86.67)
2.	Doses of chemicals	-	1 (1.33)	74 (98.67)
3.	Regarding animal disease	-	10 (13.33)	65 (86.67)
4.	Treatment of different animals	-	9 (12.00)	66 (88.00)
Other				
1.	Information communication technology	36 (48.00)	33 (44.00)	6 (8.00)
2.	Efficient use of information technology	42 (56.00)	32 (42.67)	1 (1.33)
3.	Internet	6 (8.00)	34 (45.33)	35 (46.67)
4.	Business management	66 (88.00)	8 (10.67)	1 (1.33)
5.	Government rules and regulation	33 (44.00)	36 (48.00)	6 (8.00)

(Figure in parentheses indicates percentages)

crops'(12.00%), 'Seed treatment'(50.67%), 'ideal seed storage'(2.67%), while 'Purchasing of machinery and implements'(33.33 %), 'Regarding getting subsidy and loan'(17.33 %), while 'protection of the stored seeds from pest'(1.33%), 'protective measures and treatment over poisoning'(6.67 %) and 'nutrients content in feeds'(1.33%).

### Conclusion :

Findings of the study led to conclude that agricultural inputs were one of the major inputs in modern agriculture such as fertilizers, pesticides, insecticides, seeds, tools and implements and machinery. The high yielding varieties of different crops are responsive to the chemical fertilizers. So, high yielding varieties, coupled with chemical fertilizers and farm mechanization have contributed greatly in bringing green revolution in our country. Use of any input as per recommendation is dependent upon ready availability of that input to the farmers, so is the case of chemical fertilizers, seeds, insecticides, pesticides and tools and implements. The government has introduced many measures for timely and adequate supply of desired fertilizers at reasonable price to the needy farmers. The agricultural input dealers play an important role in providing the farm input to the farmers. While trading the farm inputs, the dealers advise the farmers about their use and application in the field. As such, the dealers must possess the appropriate knowledge about the fertilizer use in the field. So, imparting to them is necessary training to increase the performance of the agricultural input dealers. This would help in increasing crop production and economic status of the agriculturists.

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