

Training Needs of Grass-Root Level Extension Worker

Kumari Kavita¹, Dibyanshu Shekhar² and A. K. Singh³

ABSTRACT

The multiplicity of extension systems are under operation in India considering the varied agro-ecological situations under which farmers reside, besides variations in the resource base of farmers. The extension system envisaged to achieve desired growth in agricultural sector with pluralistic in nature. Visualizing the need to deploy trained man power at grass root level for ensuring effective extension, the Government of Bihar state appointed Agriculture Coordinator and *Kisan Salahkar* at panchayat level to cater the farmers' information need and to assist the farmers for giving them advantages of ongoing agricultural developmental programmes. Training needs for grass root level extension personnel can be defined in terms of gap between job requirement and job performance. During the study the training need was assessed in the thematic areas like improved agricultural practices, organization and administration, programme development and execution, communication skill and social system and local leadership with the help of Agriculture Coordinator and *Kisan Salahkar* as the sample. The results of the study reveal that perceived training about improved agricultural technology was very much needed by the 73.33 per cent of the Agriculture Coordinator, whereas 87.79 per cent of *Kisan Salahkar* were also showed the same pattern of this responses.

Key words: Source of information, Training need of extension personnel.

INTRODUCTION

Extension, as an educational input, can make an important contribution to sustainable agricultural production and rural development. The agricultural extension is known to offer technical guidance, provide information, help the farmers to identify their problems and organize themselves in the groups. Today, Extension Services of our country is facing numerous emerged challenges. Birnor *et. al.*, (2006) state that today agricultural extension is partner of all those organizations that support, facilitate and assist the farming communities involved in agricultural production. The need for an up-to-date extension advice to the farmers on farming systems and marketing linkages are becoming increasingly important. The goodness of agricultural extension is depend upon the quality of the extension workers who are providing the service. Planning, training and management of human resources within extension organizations are essential to increase the capabilities and overall effectiveness of extension personnel. Realizing the importance, the Government of Bihar under Rashtriya Krishi Vikas Yojna appointed 4391 Agriculture Coordinator (earlier Subject Mater Specialist) who cater

the need of grass root level extension workers in 2008-09 and 6480 *Kisan Salahkar* in 2009-10 to excel the agricultural developmental programmes. For every two panchayats there is one Agriculture Coordinator (earlier Subject Mater Specialist). The Agriculture Coordinator and *Kisan Salahkar* is the grass-root level extension worker in the Department of agriculture. Several studies (Meena & Baldeo, 2006) emphasized that job performance can be enhanced by providing well structured training programmes. Training need assessment is vital in the training process. Need assessment helps to identify present problems and future challenges to be met through training and development. It is required to find out the needs of individual training on which they should build their professional competencies to carry out the assigned job in their organization. A cursory approach for identifying training needs involves the rating of training needs by the intended beneficiaries. If the selected personal characteristics of the grass-root level extension worker association with their training needs are known, it will be guideline for the administrators, for selecting persons having desirable characteristics and also to make proper approach to the farmers for solving their problems and giving guidance. Thus, farmer can make the best use

¹Research Scholar, ²Asstt. Prof., ³Univ. Prof., Department of Extension Education, Dr. RPCAU, Pusa, Samastipur (Bihar)

of services of Agriculture Coordinator and *Kisan Salahkar* working in the Agriculture Department. In the light of this fact, present study has been planned to analyze and diagnose the training needs of the Agriculture Coordinators and *Kisan Salahkar*. Since they are field-level extension agents and they often make direct contact with farmers and rural women to whom they introduce new ideas and practices, and address the requirement for improved farming and family living. Hence, the present study is planned to identify areas of training need of these extension personnel.

METHODOLOGY

The study was conducted in Samastipur district of Bihar which is agricultural hub of the state since many decades. Total 75 respondents were selected for this study, 20 Agriculture Coordinator out of 134 and 55 *Kisan Salahkar* out of 374(15% of the total with the help of proportionate probability principle).The district has 20 CD blocks and out of which Agriculture Coordinators from 10 blocks and *Kisan Salahkar* from 07 blocks was purposely selected based on their availability. The independent variables for the study were source of information, mass media exposure and dependent variables was training need. All the variables were measured under the set rules and procedures, with the help of scale and schedules adopted for the study. The data was gathered from person to person by interview method in different phase to maintain reliability of the data through the use of questionnaire. After the collection of data it was systematically arranged and tabulated for further analysis and meaningful interpretation of results.

RESULTS AND DISCUSSION

The findings based on the analysis of results are presented herewith through different tables and figures.

Sources of Information

This study aimed to find out information sources used by Agriculture Coordinator and *Kisan Salahkar*. The sources of information utilized by the respondents was recorded and the results are given in Table. 1.

Table 1: Sources of information Utilization Pattern

Sources of Information	Agriculture Coordinators				<i>Kisan Salahkar</i>			
	Always	Often	Some times	Never	Always	Often	Some times	Never
Krishi Vigyan Kendra	0	3	14	3	1	4	24	26
Agriculture University Scientists	0	3	17	0	2	7	21	25
Agriculture technology management agency (ATMA)	9	9	2	0	11	21	19	4
Block agriculture officer	17	3	0	0	24	30	0	1
<i>Kisan salahkar</i>	15	1	2	2	50	1	1	3

Kisan Dairy	14	1	1	4	20	23	10	2
Magazine	7	5	4	4	12	14	25	4
TV Programmes	8	5	4	3	10	10	21	14
Mobile	13	5	0	2	25	26	3	1
Agriculture Coordinator	12	2	0	6	51	0	0	4
Others (Progressive farmers)	01	0	0	19	11	0	0	44

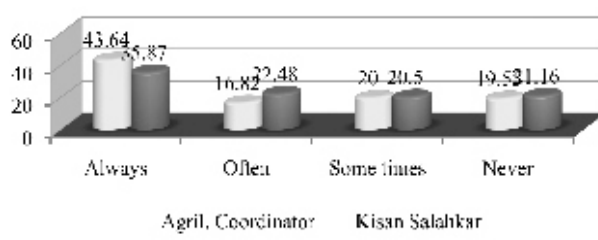


Fig1: Pooled Source of Information Utilization Pattern(in %)

It can be seen from the table that majority of respondents of among Agriculture Coordinator were more frequently used sources of information through Block Agriculture Officer, *Kisan Salahkar* and Kisan Dairy whereas majority of respondents of *Kisan Salahkar* were found to use Agriculture Coordinator and *Kisan Salahkar* as a source of information. 43.64 per cent of Agriculture Coordinator and 35.87 per cent of *Kisan Salahkar* have always used these sources of information.

It is observed during the study that 16.82 per cent respondents of Agriculture Coordinators and 22.48 per cent respondents of *Kisan Salahkar* were often found to use these sources of information while 20 per cent respondent of Agriculture Coordinator and 20.5 respondents of *Kisan Salahkar* were found to use these sources of information on sometime basis. It is also indicated that 19.55 per cent respondent of Agriculture Coordinator and 21.16 per cent respondents of *Kisan Salahkar* never used these sources of information.

Therefore, it can be concluded that majority of respondents of Agriculture Coordinator and *Kisan Salahkar* were found to utilize these different sources for information. The Fig.1 denotes the information utilization pattern of the selected respondents on the basis of pooled data

Mass media exposure:

The uses and gratifications approach to studying the mass media exposure of the respondents as actively choosing and using mass media, rather than passively consuming and responding to them. The results are presented through Table 2.and supported by Fig.2.

Table 2: Mass media exposure pattern

Sources of Information	Agriculture Coordinators				Kisan Salahkar			
	Always	Often	Some times	Never	Always	Often	Some times	Never
Radio	3	3	10	4	11	2	9	33
Audio – tape	0	3	11	6	2	5	13	35
Posters/Pamphlets	2	8	10	0	11	20	19	5
Farm shows/ demonstration	3	9	5	3	7	25	19	4
Agricultural campaigns	2	11	7	0	14	8	25	8
Projection for sowing agriculture film	0	4	12	4	0	5	16	34
Film slides	0	3	12	5	2	0	26	27
Movie/cinema	0	2	10	8	0	0	15	14
Newspaper	8	8	3	1	11	23	11	10
Public speeches	3	7	8	2	5	21	15	14
T.V	5	7	2	6	1	11	15	28
Kisan Mela	7	7	5	1	8	24	22	1
Exhibition	4	8	7	1	9	8	37	1
Kisan Diary	11	5	2	2	32	9	13	1
Other	1	0	1	18	4	0	0	51

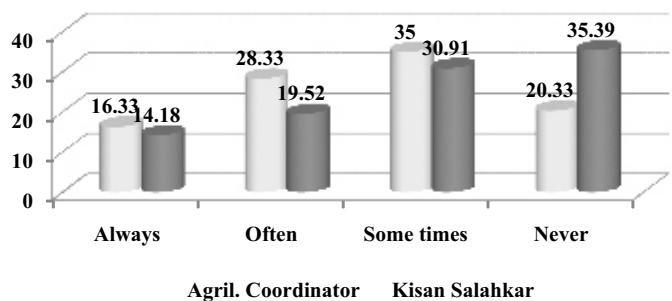


Fig 2: Pooled Mass Media Utilization Pattern (in %)

It can be seen from the tables, that more frequency of total selected respondents of Agriculture Coordinator and *Kisan Salahkar* were found to always use these sources of information which include as Agricultural campaigns, newspaper and kisan diary. This table also indicated that 16.33 per cent respondents of total selected Agriculture Coordinator and 14.18 per cent respondents of total *Kisan Salahkar* were found to always use these sources of information. 35 per cent respondents of Agriculture Coordinator and 30.91 per cent respondents of total selected *Kisan Salahkar* were found to use these sources of information on sometimes basis. Thus, it can be concluded that majority of Agriculture Coordinator and *Kisan Salahkar* were sometimes used these sources of information for mass media exposure. Fig shows the similar pattern of response as expressed by Agriculture Coordinator and *Kisan Salahkar*.

Training need of extension personnel

It indicates the areas in which respondents expressed training needs are very relevant to knowledge and skills required for executing extension programmes as well as responding to farmers' needs. The data was collected from

the respondents on the training need in the several thematic areas like improved agricultural practices, organization and administration, programme development and execution, communication skill, social system and local leadership. The results are displayed here through table 3.

Perceived training need with respect to improved agricultural practices

The data on perceived training needs of respondents about improved agricultural practices are presented in the Table 3.

Table 3: Perceived training need about improved agricultural practices

Training need in specific area	Agriculture Coordinators				Kisan Salahkar			
	Very much needed	Moderately needed	Slightly needed	Not needed	Very much needed	Moderately needed	Slightly needed	Not needed
Pests and diseases of different crops and methods of their control	19	1	0	0	54	1	0	0
Different recommended varieties of the major crops grown in the state and their suitability for the different agro climatic conditions.	17	2	1	0	50	1	3	1
The recommended irrigation and water management practices of high yielding varieties of paddy	14	4	1	1	37	13	5	0
The recommended irrigation and water management practices of the high yielding varieties of wheat	10	6	2	2	43	8	4	0
The recommended irrigation and water management practices of the high yielding varieties of maize.	14	3	1	2	43	3	8	1
The recommended irrigation and water management practices of other leading crops grown in the area	14	1	3	2	49	1	5	0
Cost of different inputs	13	3	1	3	46	4	4	1
Different improved agricultural implements' and their use	13	3	1	3	50	1	4	0
Common weeds of different crops and their control	15	2	1	2	50	1	4	0
Improved methods or sowing of different crops	14	2	1	3	50	1	4	0
Suitable cropping patterns for the different agro climatic conditions	17	2	1	0	46	6	3	0
Recommended doses of different fertilizers for the various crops and methods along with time of their application	16	1	1	2	49	5	1	0
Recommended soil conservation practices	16	2	1	1	50	3	2	0
Recommended methods of the management of problem soils	13	6	1	0	51	3	1	0
Improved methods of storage of grains	13	4	2	1	50	2	2	1
Methods of maintaining the purity of seeds of the high yielding varieties of different Crops	15	2	1	2	50	3	2	0
Recommended techniques of seed treatment of major crops	14	3	1	2	44	8	3	0
Methods of soil testing	13	4	2	1	50	0	4	1
Principles of mixed cropping	17	2	1	0	49	4	2	0
Recommended practices for growing of important fruit crops	15	3	1	1	51	3	1	0

Recommended methods of fruit and vegetable preservations	16	3	1	0	52	2	1	0
Total	308	59	25	28	1014	73	63	5
%	73.3	14.04	5.95	6.6	87.79	6.32	5.45	.43

The findings reveal that 73.3 per cent Agriculture Coordinator expressed very much training need for improved agricultural technology whereas 87.79 per cent *Kisan Salahkar* were found to show similar responses. The results also indicated that more frequency of total selected respondents of Agriculture Coordinators were found to perceived training need about improved agricultural practices in the area of Pests and diseases of different crops and methods of their control followed by principles of mixed cropping whereas, more frequency of total selected respondents of *Kisan Salahkar* were found to perceived training need about improved agricultural practices in the area of pests and diseases of different crops and methods of their control followed by recommended methods of fruit and vegetable preservations.

Perceived training need with respect to organization and administration of extension programmes in the state:

The results of study on perceived training needs of respondents about organization and administration of extension programmes in state are presented here in Table 4.

Table 4: Perceived training need about organization and administration of extension programmes in the state

Training need in specific area	Agriculture Coordinators				<i>Kisan Salahkar</i>			
	Very much needed	Moderately needed	Slightly needed	Not needed	Very much needed	Moderately needed	Slightly needed	Not needed
Brief history of extension work in India general and Bihar particular	18	2	0	0	47	4	4	0
Present strategy for agricultural extension work in state	18	2	0	0	33	18	4	0
Different extension programmes going on in the state and their objectives	17	1	1	1	30	17	7	1
Administrative organization for agricultural extension work in the state	18	1	0	1	45	7	3	0
Functions and responsibilities of different extension officers of state	16	2	0	2	37	15	2	1
Principles and practices of effective office management	17	3	0	0	52	3	0	0
Own responsibilities and authority	17	2	0	1	42	6	5	2
Techniques of effective public relations	17	2	0	1	46	5	0	4
Principles and methods of effective supervision	17	2	0	1	44	6	3	2
Techniques of taking work from subordinates and colleague	16	0	1	3	45	2	5	3

Sources of the availability of different inputs	14	5	0	1	50	1	3	1
Amount of subsidies and facilities provided under different programmes for purchase of different inputs by farmers	14	4	1	1	50	2	2	1
Total	199	26	3	12	521	86	38	15
%	82.92	10.83	1.25	5.00	78.94	13.03	5.76	2.27

The results revealed that 82.92 per cent Agriculture Coordinator and 78.94 per cent *Kisan Salahkar* expressed their training need in the area of Organization and Administration of extension programmes. The results also show that more frequency of total selected respondents of Agriculture Coordinators for perceived training need about Organization and Administration of extension programmes were very much needed in specific areas of brief history of extension work in India general and Bihar in particular and present strategy for agricultural extension work in state followed by principles and practices of effective office management, own responsibilities and authority, techniques of effective public relations and principles and methods of effective supervision. Whereas, more frequency of total selected respondents of *Kisan Salahkar* for perceived training need about Organization and Administration of extension programmes in state were very much needed in the areas of Principles and practices of effective office management followed by sources of the availability of different inputs and amount of subsidies and facilities provided under different programmes for purchase of different inputs by farmers.

Perceived training need about programme development and execution: The results of study on perceived training needs of respondents programme development and execution are presented here in Table 5.

Table 5: Perceived training need about programme development and execution

Training need in specific area	Agriculture Coordinators				<i>Kisan Salahkar</i>			
	Very much needed	Moderately needed	Slightly needed	Not needed	Very much needed	Moderately needed	Slightly needed	Not needed
Principles and processes involved in the preparation of:								
Preparation of individual farm production plan	17	2	0	1	48	4	2	1
Preparation of village development plan	18	1	0	1	50	5	0	0
Preparation of block development plan	18	2	0	0	43	11	1	0
Methods of collecting facts about the farmer and their farm and analyses situation	18	1	0	1	49	2	3	1
Methods to identify the needs of the farmers	18	1	1	0	51	0	4	0
Methods to identify the problems and determining priority	18	1	1	0	50	1	4	0

Methods to involve the farmers in planning and execution of development plan	19	0	1	0	50	1	4	0
Methods to find out appropriate solutions related with the problems faced by farmers	18	1	1	0	49	2	4	0
Methods to prepare plan of work to achieve the objectives set forth	18	1	1	0	50	1	4	0
Methods to help farmers to set the requisite inputs in time	16	2	1	1	51	0	4	0
Methods of coordinating the national priorities and local needs	18	1	1	0	47	4	4	0
Methods to help farmers and execute the farm production plan	19	1	0	0	49	2	4	0
Methods of involve people in programme development	16	4	0	0	46	3	5	1
Methods to involve people in programme execution	16	4	0	0	45	4	5	1
Methods to organize village people for action	19	0	1	0	51	1	3	0
Total	266	22	8	4	729	41	51	4
%	88.67	7.33	2.67	1.33	88.36	4.97	6.18	0.48

The result placed in Table 5 indicated that 88.67 per cent Agriculture Coordinators and 88.36 per cent *Kisan Salahkar* had their opinion that training on programme development and execution are very much needed. The results also indicate that more frequency of total selected respondents of Agriculture Coordinators for perceived training need related with programme development and execution was very much needed in specific area of methods to involve the farmers in planning and execution of development plan, methods to help farmers and execute the farm production plan and methods to organize village people for action followed by preparation of village and block development plan, methods of collecting facts about the farmer and their farm and analyses situation, methods to identify the needs of the farmers, methods to identify the problems and determining priority, methods to find out appropriate solutions related with the problems as faced by farmers, methods to prepare plan of work to achieve the objectives set forth along with the methods of coordinating the national priorities and local needs. With regards to frequency of total selected respondents of *Kisan Salahkar* it was found for perceived training need about programme development and execution which were very much needed in specific area of methods to identify the needs of the farmers, methods to help farmers to set the requisite inputs in time, methods to organize village people for action followed by preparation of village development plan, methods to identify the problems and determining priority, methods to involve the farmers in planning and execution of development plan along with the methods to prepare plan of work to achieve the objectives set forth.

Perceived training need about communication skill:

During the present study an attempt was made to examine the perceived training need of the selected

respondent related with their communication skill. The details of obtained result are being presented here with in Table. 6.

Table 6: Perceived training need about communication skill

Training need in specific area	Agriculture Coordinators				<i>Kisan Salahkar</i>			
	Very much needed	Moderately needed	Slightly needed	Not needed	Very much needed	Moderately needed	Slightly needed	Not needed
Concept and principles of communication	17	2	0	1	52	0	1	2
Key elements of communication process	17	3	0	0	52	1	0	2
Knowledge of different barriers of effective communication and methods to overcome on them	19	0	0	1	54	0	0	1
Techniques of selection of channels/media appropriate to the message and audience	18	1	0	1	52	2	0	1
Methods of conducting farmers group discussion and meetings	18	1	1	0	52	2	1	0
Methods of conducting effective demonstrations	18	1	1	0	48	5	1	1
Methods of organizing campaigns and drives for increasing production	19	0	1	0	49	4	2	0
Methods of perceiving the audience response	17	3	0	0	51	1	3	0
Methods of formulating effective extension and communication strategy for different category of farmers	17	3	0	0	53	0	2	0
Total	160	14	3	3	463	15	10	7
%	88.9	7.8	1.7	1.7	93.5	3.0	2.0	1.4

It is evident from the perusal of table 6 that 88.9 per cent Agriculture Coordinator and 93.5 per cent *Kisan Salahkar* were found to perceive very much need of training on communication skill. The findings of the study also reflected that more frequency of total selected respondents of Agriculture Coordinators for perceived training need related with communication skill were very much needed in specific area of knowledge of different barriers of effective communication and methods to overcome on them and methods of organizing campaigns and drives for increasing production followed by techniques of selection of channels/media appropriate to the message and audience, methods of conducting farmer's group discussion and meetings along with methods of conducting effective demonstrations. With respect to frequency of total selected respondents of *Kisan Salahkar* it was shown that perceived training need were very much needed in specific area of knowledge of different barriers of effective communication and

methods to overcome on them followed by methods of formulating effective extension and communication strategy for different category of farmers.

Perceived training need about rural social system and local leadership:

An effort was also made to assess the perceived training need about rural social system and leadership. The result in this regard is presented here in Table 7.

Table 7: Perceived training need related with rural social system and local leadership

Training need in specific area	Agriculture Coordinators				Kisan Salahkar			
	Very much needed	Moderately needed	Slightly needed	Not needed	Very much needed	Moderately needed	Slightly needed	Not needed
The basic cultural pattern of villagers	16	3	0	1	28	19	8	0
Role of religious institutions in village life	12	7	0	1	27	15	9	4
Role of rural social institutions in extension work	16	3	0	1	44	5	3	3
Methods of using local functions for extension and communication work	17	1	1	1	27	22	3	3
Simple methods of identifying village functions	18	2	0	0	50	2	0	3
Methods of organizing voluntary groups for extension work	11	8	0	1	19	21	8	7
Methods of identifying informal emerging village leaders	15	5	0	0	40	5	2	8
Methods of using village leaders for extension work	16	4	0	0	43	5	5	2
Methods of training village leaders for extension work	13	6	0	1	34	13	5	3
Role of local leaders in extension work	14	6	0	0	44	3	4	4
Methods of motivation and encouraging village leaders for extension work	17	3	0	0	44	5	5	1
Methods of working with local groups	17	2	1	0	47	2	0	6
Methods of mobilizing village youth for extension work	18	2	0	0	46	2	1	6
Total	200	52	2	6	493	119	53	50
%	76.9	20.0	0.8	2.3	69.0	16.6	7.4	7.0

The findings depicted in Table 7 reveal that 76.9 per cent Agriculture Coordinator and 69.0 per cent of *Kisan Salahkar* were having their opinion that there was much need for training on rural social system and leadership. The results also revealed that more frequency of total selected respondents of Agriculture Coordinators for perceived training need related with rural social system and local leadership were very much needed in specific area of simple methods of identifying village functions

and methods of mobilizing village youth for extension work. Whereas, more frequency of total selected respondents of *Kisan Salahkar* were found to perceive very much training need in specific area of simple methods of identifying village functions followed by methods of mobilizing village youth for extension work. The pooled data on the perceived training need of the selected respondents in the total thematic areas like improved agricultural practices, organization and administration, programme development and execution, communication skill and social system and local leadership are presented here through Fig 3.

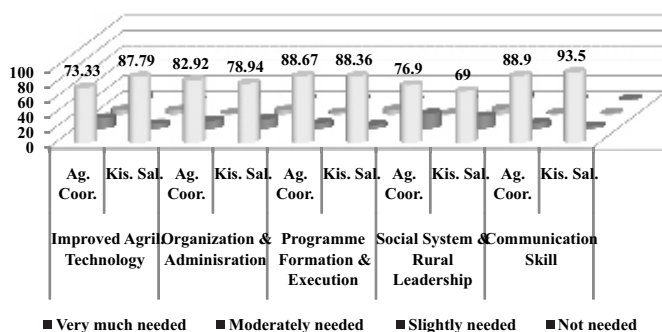


Fig.3. Pooled perceived training need

The data presented in table indicate that perceived training need about improved agricultural technology was very much needed among the 73.33 per cent of the Agriculture Coordinator whereas 87.79 per cent of *Kisan Salahkar* were also shown the same pattern of their responses. With respect to organization and administration area perceived training need was very much needed for 82.92 per cent of Agriculture Coordinator whereas among *Kisan Salahkar* it was found 78.94 per cent. In the areas of programme formation and execution, perceived training need was very much among the 88.67 per cent of Agriculture Coordinator and 88.36 per cent for *Kisan Salahkar*. Similarly, perceived training need related with social system and rural leadership were found very much needed among 76.9 per cent of agriculture coordinator whereas 69 per cent for *Kisan Salahkar*. In the areas of communication skill, perceived training need was found very much that is 88.9 per cent for the agriculture coordinator whereas it was found 93.5per cent among the *Kisan Salahkar*.

The observed findings are in conformity with Kalita (1992), and Kokate (2011) who reported based on their systematic study that some of the most important training need areas for village level extension workers are Entomology, Plant Pathology, Soil Science and Horticulture in order of its importance. Relationship between socio-economic characteristics of

the extension personnel in relation to their training need:

Further, attempt was made to assess the relationship between socio-economic characteristics of the extension personnel in relation to their training need. For this purpose, Chi Square Test was applied and the findings based on analysis are presented here in table.8.

Table 8: Relationship between source of information pattern of the extension personnel in relation to their training need: Chi-square analysis

Socio-economic variables	Agril. Coordinator	Kisan Salahkar
Source of information	4.30 NS	35.56**
Mass media exposure	2.40 NS	25.56 NS

** = Significant at 1% of probability;

* = Significant at 5% of probability and NS = Non-significant

In case of relationship between the sources of information and mass media exposure character of the respondent grass root level extension agents with their training needs, it was observed that in the case of Agriculture Coordinator source of information and mass media exposure were found non-significant (NS) ($p > 0.05$) while it was observed highly associated with the training need of *Kisan Salahkar*. The mass media exposures in the case of *Kisan Salahkar* was found non-significant (NS). This finding is in line with the findings of Yadav *et. al.*, (2012) and Kharde *et. al.* (2014) Singh *et al.* (2011).

CONCLUSION

Based on study, it is evident that perceived training need about improved agricultural technology, organization and administration, programme formation and execution, social system and rural leadership along with communication skill were very much needed among the Agriculture Coordinator and of Kisan Salahkar. In case of Agriculture Coordinator source of information and mass media exposure were found non-significant (NS). Thus, the Agriculture Coordinator who have less education, less social participation and have less responsibility and having less training attendance had found to show higher need for training. While in case of Kisan Salahkar, source of information, was found highly associated with the training need. Agriculture Coordinator perceived that there was need to provide training in the area of organization and Administration, social system and rural leadership and programme formation as compared to Kisan Salahkar whereas Kisan Salahkar perceived the need for more training in the area of improved agricultural technology, communication skill as compared to Agriculture Coordinator. It is evident from the study that Agriculture Coordinator expressed their potential in thematic areas of training such as critical

irrigation time, weed management, storage, disease, improved equipment, marketing whereas for Kisan Salahkar storage, weed management, disease management needs were found to be emphasized more. Therefore, Government should take care of their perceived need in order to formulate and design training programme for them so that farmers of the state may be able to get the maximum benefits out of their efforts and involvement.

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