**Research Article**

# Extent of knowledge of farmers friends (Krishk Mitras) on different agricultural aspects

■ **D.S. BHATI, B.S. SIDHU, SEEMA JASUJA, J.R. VERMA AND A.K. SRIVASTAVA**

**SUMMARY :** Farmers friends work as the village level extension worker under ATMA in each and every district of the Rajasthan. They face various problems related to the different aspect agriculture; hence, government of Rajasthan decided to trained the farmers friends through Krishi Vigyan Kendra of the district. The study was conducted on 1000 farmers friends of the Sriganganagar district of Rajasthan. The findings of this study highlighted that there was a significant gain in the knowledge about different aspect of agriculture included in the training programme. The correlation between knowledge of agricultural aspect and socio-personnel characteristics of trainees also showed that caste, education, occupation, mass media exposure, contact with extension agent and annual income were positively where as age, type of family and size of holding were negatively correlated.

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## BACKGROUND AND OBJECTIVES

The concept of Agriculture Technology Management Agency (ATMA) was introduced in 1999 as an autonomous organization under the National Agricultural Technology Project (NATP) by providing flexible working environment with objective of integrating research, extension and all other stake holders at the district level to support the farmer's needs and interest through an integrated approach of strategic plan. ATMA is a society of key stake holders involved in agricultural activities for sustainable agricultural development in the district. Involvement of farmers can be achieved at the village level through farmer's interest groups (FIGs), at block level as a member of farmer's advisory committee (FAC) and at district level as the member of ATMA governing board. The concept of ATMA envisages paradigm shift from top down to bottom up in the planning and implementation of agriculture development programmes (Prakash and De, 2008; Singh, 2006, 2008 and 2009; Swanson *et al.,* 2008; Swanson

and Rajalahti, 2010 ).

It is impossible for existing extension functionaries, to reach with each and every farmer because he have large area *i.e.* up to ten villages or more villages. There is a need of a person who act as extension worker in a village, so a farmers friend from the same village is selected under ATMA scheme for this purposes through the gram sabha of gram pnachayat and locally known as "Krishk Mitras" (Bhati *et al.,* 2012 and Pandhare *et al.,* 2012).The Farmer Friend (FF) will serve as a vital link between extension system and farmers at village level (one for every two villages). The FF will be available in the village to advise on agriculture and allied activities. The FF will mobilize farmers' groups and facilitate dissemination of information to such groups, individual farmers and farm women directly through one to one interaction individually or in groups and also by accessing information / services on behalf of farmers as per need through Common Service Centres (CSC) / Kisan Call Centres (KCC). The farmers friends are not to paid

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any cash-compensation. Rs. 4000 per farmers friend per year will be provided to meet out contingency expenditure, FF may be provided cash incentives and / or honorarium. The responsibility to train these farmers friends on various aspect of agriculture was given to the Krishi Vigyan Kendra of the district.

One of the main tasks of Krishi Vigyan Kendra is to provide and improve the level of knowledge of trainees about the improved farm practices, because knowledge is cognitive component of individual's mind and plays an important role in covert as well as overt behaviour and individuals with a greater knowledge of technical nature of improved practices would lead to high adoption possibly because knowledge is not inert. Once knowledge is acquired and retained, it undergoes and produces changes in the thinking process and mental alchemy. This study was therefore, conducted to ascertain the prevailing level of awareness knowledge of farmers friends training programme.

# RESOURCES AND METHODS

The present study was undertaken in all the nine block of the Sriganganagar district. A farmers friend was selected from two revenue villages through the gram sabha of gram Panchayat. Selected farmers friends are send to the Krishi Vigyan Kendra's for getting training on different aspect of agriculture. These 1000 FF are trained on various aspect of agriculture in nine training programme at KVK for the period of five days. A knowledge test was developed to ascertain the knowledge of FF on various aspect of agriculture. The gain in knowledge was operationalzed as difference between the knowledge regarding various aspect of agriculture as livelihood before and after the exposure of trainings. To measure the knowledge a respondent was given a score of one for correct answer and zero for wrong answer. Thus the summation of all scores treated as the knowledge of the respondents at pre-exposure stage. Similarly post-training knowledge score was calculated separately. Suitable statistical tools and techniques were used for analysis of data.

# OBSERVATIONS AND ANALYSIS

The experimental findings obtained from the present study have been discussed in following heads:

**Extent of knowledge about agricultural aspects:**

To assess the effects of 'farmers friends' training the knowledge of the respondents was measured with the help of standardized, test at three period of interval that is pre training, immediately after training. A score of one was given for each correct answer. On the basis of score the respondents was classified as having high (65.5 % and above), medium (35.5 to 65.5%) and low (0 to 35.5 %) level of knowledge as presented in Table 1.

| Table 1: Pre-training knowledge score of respondent | | | (n=1000) |
|---|---|---|---|
| Sr.No. | Knowledge level | Number | Percentage |
| 1. | Low level (0 to 35.5 %) | 847 | 84.70 |
| 2. | Medium level (35.5 to 65.5%) | 131 | 13.10 |
| 3. | High level (65.5 % and above) | 22 | 02.20 |
| | Mean | 28.45 | |
| | Range | 09-41 | |

Table 1 reveals that the majority (84.70%) of the respondents had low of knowledge about different aspect of agriculture for livelihood followed by medium that is only 13.10 per cent while 02.20 per cent of the respondents obtain high level of knowledge score related different aspect of agriculture for lively hood, before participating the 'farmers friends' training.

It is clear from Table 2 that after training on different aspect of agriculture for livelihood, majority of the respondents ( 71.10 % ) had medium level of knowledge score, followed by (22.00%) high level of knowledge score, while 06.90 per cent of the respondents obtain lower level of knowledge score related different aspect of agriculture for livelihood.

| Table 2 : Post-training knowledge score of respondent | | | (n=1000) |
|---|---|---|---|
| Sr. No. | Knowledge level | Number | Percentage |
| 1. | Low level (0 to 35.5 %) | 69 | 06.90 |
| 2. | Medium level (35.5 to 65.5%) | 711 | 71.10 |
| 3. | High level (65.5 % and above) | 220 | 22.00 |
| | Mean | 56.57 | |
| | Range | 32-68 | |

**Extent of gain in knowledge:**

The gain in knowledge was determined by subtracting the pre-training knowledge score from knowledge score obtained immediately after training. Based on the differential score respondents were classified as high (65.5 % and above), medium (35.5 to 65.5%) and low (0 to 35.5 %).

It has been seen from the Table 3 that the retention in knowledge was low in respect of 05.40 per cent of the respondents, medium in 72.30 per cent while 22.30 per cent of respondent retained high level of knowledge.

| Table 3: Knowledge gained by respondents after training | | | (n=1000) |
|---|---|---|---|
| Sr.No. | Knowledge level | Number | Percentage |
| 1. | Low level (0 to 35.5 %) | 54 | 05.40 |
| 2. | Medium level (35.5 to 65.5%) | 723 | 72.30 |
| 3. | High level (65.5 % and above) | 223 | 22.30 |
| | Mean | 52.30 | |
| | Range | 21-64 | |

**Knowledge gained by 'farmers friends' about various aspect of agriculture in trainings:**

It indicate that before exposure of training majority of respondents had low level of knowledge related to various aspects of agriculture practices. Some of the respondents

**Table 4 : Distribution of respondents according to knowledge in various aspect of agriculture for livelihood**

| Sr.No. | Name of technology | Class | Pre training knowledge | Post- training knowledge |
|---|---|---|---|---|
| 1. | General duties of krishik Mitras | Low (0-2 ) | 547 | 68 |
| | | Medium(3-4 ) | 436 | 852 |
| | | High(5-6 ) | 17 | 80 |
| 2. | Collection of soil and water samples | Low (0-1) | 519 | 44 |
| | | Medium( 2-3) | 335 | 746 |
| | | High( 4) | 146 | 210 |
| 3. | Cultivation of seed spices and cash crops | Low ( 0-3) | 483 | 52 |
| | | Medium( 4-6) | 517 | 811 |
| | | High( 7-9) | 00 | 137 |
| 4. | Cultivation of *Kharif* crops | Low ( 0-3) | 358 | 41 |
| | | Medium( 4-6) | 531 | 797 |
| | | High( 7-9) | 111 | 138 |
| 5. | Cultivation of *Rabi* crops | Low (0-3 ) | 314 | 67 |
| | | Medium(4-6 ) | 517 | 702 |
| | | High(7-9 ) | 169 | 231 |
| 6. | Cultivation of arid fruits | Low ( 0-3) | 882 | 94 |
| | | Medium( 4-6) | 108 | 726 |
| | | High(7-9 ) | 10 | 180 |
| 7. | Cultivation of vegetables | Low (0-3 ) | 655 | 93 |
| | | Medium(4-6 ) | 278 | 781 |
| | | High(7-9 ) | 67 | 126 |
| 8. | Plant protection measure | Low (0-1 ) | 813 | 213 |
| | | Medium(2-3 ) | 141 | 772 |
| | | High(4-5 ) | 46 | 15 |
| 9. | Live stock management | Low (0-1 ) | 403 | 51 |
| | | Medium(2-3 ) | 576 | 809 |
| | | High( 4-5) | 21 | 140 |
| 10. | Post harvest management | Low ( 0-1) | 819 | 227 |
| | | Medium( 2-3) | 181 | 663 |
| | | High( 4-5) | 00 | 110 |
| 11. | Schemes of agriculture and horticulture departments | Low ( 0-3) | 582 | 75 |
| | | Medium(4-6 ) | 416 | 597 |
| | | High( 7-9) | 002 | 328 |
| 12. | Group approach-FIG/SHG | Low ( 0-1) | 627 | 74 |
| | | Medium(2-3 ) | 335 | 911 |
| | | High(4-5 ) | 38 | 15 |

**Table 5: Comparative mean scores of pre-training and post training knowledge of respondents**

| Sr. No. | Various aspect of agriculture farmers friends training | Pre-training (mean) | Post-training (mean) | Difference | t- value |
|---|---|---|---|---|---|
| 1. | General duties of krishik Mitras | 1.78 | 4.29 | 2.51 | 36.11** |
| 2. | Collection of soil and water samples | 1.04 | 2.85 | 1.81 | 31.13** |
| 3. | Cultivation of seed spices and cash crops | 4.16 | 6.62 | 2.46 | 25.05** |
| 4. | Cultivation of *Kharif* crops | 3.87 | 6.58 | 2.71 | 32.22** |
| 5. | Cultivation of *Rabi* crops | 3.83 | 6.17 | 2.34 | 34.09** |
| 6. | Cultivation of arid fruits | 2.92 | 5.91 | 2.99 | 32.92** |
| 7. | Cultivation of vegetables | 4.10 | 6.17 | 2.07 | 29.86** |
| 8. | Plant protection measure | 1.85 | 3.44 | 1.59 | 33.92** |
| 9. | Live stock management | 2.03 | 3.80 | 1.77 | 33.02** |
| 10. | Post harvest management | 2.62 | 3.90 | 1.28 | 23.14** |
| 11. | Schemes of agriculture and horticulture departments | 3.36 | 5.81 | 2.45 | 35.00** |
| 12. | Group approach-FIG/SHG | 1.61 | 3.34 | 1.73 | 29.13** |

** indicate significance of value at P=0.01

obtained medium level of knowledge while few of the respondents obtain high level of knowledge. It also clear from the Table 4 that after exposure of 'farmers friends' training on various aspect of training programme, majority of the respondents had medium level of knowledge followed by high and low level of knowledge score.

In order to ascertain the impact of training programme on gain in the knowledge paired 't' test was employed. The pre and post mean knowledge scores of the recipients of the training was calculated and paired 't' value are presented in Table 5. Statistically significant differences were found among pre and post training mean score of all aspects of agriculture training. Significant difference between pre training and post training mean score *i.e.* before and after the training confirm the fact that the respondents were able to gain sufficient knowledge at post training programme. The results of this study are in line with the findings of Singh and Verma (1998) and Kumari *et al.* (2010).

**Relationship between socio-personnel characteristics and knowledge gain on agricultural aspects:**

The data depicted in the Table 6 showed the correlation between knowledge of agricultural aspect and socio-personnel characteristics of trainees. The attributes caste, education, occupation, mass media exposure, contact with extension agent and annual income were positively and high significantly correlated with knowledge of respondents. Whereas the characteristics age, type of family and size of holding were observed negatively correlated with knowledge gain about agricultural aspect.

**Table 6: Correlation co-efficient between knowledge of agricultural aspect and socio-personnel characteristics**

| Sr. No. | Variable | Correlation co-efficient (r) |
|---|---|---|
| 1. | Age | -0.9813** |
| 2. | Caste | 0.9516** |
| 3. | Education | 0.9337** |
| 4. | Family type | -0.9874** |
| 5. | Size of holding | -0.8492** |
| 6. | Occupation | 0.8966** |
| 7. | Mass media exposure | 0.9355** |
| 8. | Contact with extension agent | 0.9931** |
| 9. | Annual income | 0.8642** |

** indicate significance of value at P=0.01

**Conclusion:**

The significant increase in the knowledge of the farmers' friends may be due to the intensive educational training effort made by the trainers and also due to the realization of importance of these practices are in actual field situation. Because after this training programme 'farmers friends' will work as extension worker in the two villages, they solve farmers problem at village level more efficiently.

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