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Impact of training on gain in knowledge and adoption behaviour of Kisan Mitra under RSVY

V.K.Singh [1], A.K.Paswan [2] M.N.Ansari [3] & Satyaprakash [4]
AICRP on Fodder Crop RPCAU, Pusa ,(Samastipur) Bihar[1]
Department of Extension Education, RPCAU,Pusa,(Samastipur)Bihar[2,3,&4]
E-Mail- arunpaswanrau@gmail.com

ABSTRACT
Rashtriya Sam Vikas Yojana (RSVY) is a special programme launched in the year 2004-05 with the main objective of the scheme are to address the problems of low agricultural productivity, unemployment, and to fill critical gaps in physical and social infrastructure. Training is the vital component for capacity building. Since long time, this has emerged as tool to provide knowledge to participating farmers, farm youths and school drop-outs. Policy initiatives were made to provide training to Kisan Mitra under Rastirya Sam Vikas Yojana (RSVY) with basic idea to equip them with knowledge of crop production technology and, it was expected that the trained Kisan Mitra in turn will provide knowledge to practicing farmers. In order to assess the level of knowledge, attitude and extent of adoption, Kisan Mitra was exposed to pre training and after training on crop production technology. The study was conducted in five blocks of Samastipur district namely Kalyanpur, Pusa, Tajpur, Samastipur and Bibhutipur to know Impact of training under RSVY on adoption behaviour of Kisan Mitra. The findings revealed that Kisan Mitra were found to have good level of knowledge about crop production technology, they did hold positive attitude about the crop production technology and reasonably appreciable level of adoption of these technologies in real field situation. There was high degree of retention of messages in case of production technology related to cereal crops. It appears quite satisfying in the sense that cereals are very important for livelihood security and that is why, Kisan Mitra was found to retain the knowledge. The variable education, family income, cropping intensity and credit orientation were found to have positive and significant association with the gain in knowledge. The remaining variable did exhibited positive association with the dependent variable.
Keywords: Training, Knowledge, Adoption and Kisan Mitra

INTRODUCTION
Rashtriya Sam Vikas Yojana (RSVY) is a special programme launched in the year 2004-05 for 3 years i.e. upto 2006-07. A sum of Rs. 15.00 corer per year will be provided to each of the districts for a period of three years i.e. a total of Rs. 45.00 corer per district. Funds will be released to the State Governments on 100 % grant basis in suitable installments linked with the satisfactory progress of the district plan Anonymous [1].

Rashtriya Sam Vikas Yojana (RSVY) is to help achieve advancement in horticulture, agriculture and allied development. The major reason for poverty in rural areas is the unavailability of drinking water, inadequate irrigation facilities, droughts etc. This scheme is focused on development for backward areas and help reduce the imbalance and speed of development. The main objectives of the scheme are to address the problems of low agricultural productivity, unemployment, and to fill critical gaps in physical and social infrastructure. Therefore, it became imperative to assess the impact of the scheme in accelerating the agricultural growth as well as improving the quality of life of the people in the district. Keeping this in view, the study was design to know "Impact of training under RSVY on adoption behaviour of Kisan Mitra and farmers"

MATERIAL AND METHODS
Samastipur district of Bihar was selected purposively for the present investigation as the planning commission has identified this district for implementation of the scheme Rastriya Sam Vikas Yojana (RSVY). Five blocks of the district namely Kalyanpur, Pusa, Tajpur, Samastiipur and Bibhutipur were

selected randomly. It was found that a large number of Kisan Mitra as respondents were available in these blocks.As per available records it was found that in the five selected blocks of the district there were 220 Kisan Mitras who received the training under RSVY. 50 per cent of the total trainees were selected randomly for the study purposes. It means a total of 110 Kisan Mitra as respondents were selected sample size of the study purposes. Apart from this, 30 trainees were selected for pre-testing the schedule before the final study.

RESULTS AND DISCUSSION

Table 1, present mean score of calculated on the basis of responses recorded from respondents. It clearly reveals that Kisan Mitra were found to initial have good level of knowledge and they did hold positive attitude about the crop production technology and reasonably appreciable level of adoption of these technologies in real field situation. This speaks of very soundness and utility of technology and role in transforming the total agriculture. Further this is again gratifying keeping in view dominance of agricultural sector in overall GDP of the State Bihar. The findings were supported by Shrivastva K.K *et.al.*[2] who found that initial rural women have also good knowledge about crop production technology and reasonably increase after training.

Table 1:Gain in knowledge, change in attitude and adoption of respondents.

Components	N=110		*t*-value
	Prior to training	**After training**	
Knowledge	56.0	78.0	13.88*
Attitude	46.0	62.0	11.43*
Adoption	64.0	84.0	14.96*

The figures quoted in the Table2,present an interesting picture. There was high degree of retention of messages in case of production technology related to cereal crops. It appears quite satisfying in the sense that cereals are very important for livelihood security and that is why. Kisan Mitra was found to retain the knowledge. Pulses again are important, because now days it has become costly and beyond reach of common man. However, retention level was noted and the difference was found to be significant. In case of oil seeds also loss in retention was more pronounced, it was found at the lowest level in comparison to other two technologies. This study found similar results with the finding of Ravi,P [3]where results revealed that high degree of retention of messages in case of production technology related to cereal crops.

Table 2:Level of retention of knowledge

Components	Post training score	After training Score	*t*-value
Cereals	86.0	78.0	1.343*
Pulses	74.0	60.0	7.487*
Oil seeds	74.0	52.0	9.134*
Mean value	78.0	63.0	-

Table 3, depicts the correlation coefficients between independent variables with gain in knowledge The variable education (X_2) family income (X_6), cropping intensity (X_{10}) and credit orientation (X_{14}) were found to have positive and significant association with the gain in knowledge. The remaining variable did exhibited positive association with the dependent variable but the r values were found to be non-significant. Kisan Mitra who is supposed to be in possession of these qualities are expected to perform better in terms of acquiring knowledge during the course of training. Other variables which did not show significant association cannot be rejected out rightly. It is just possible that whatever relationship expected might is not been come out because of interactive effects of other variables. They might have nullified the positive and significant association by casting negative effect. Verma, J.P [4] also reported that the variableseducation, family income, cropping intensity and credit orientation were found to have positive and significant association with the gain in knowledge.

Table 3:Correlation co-efficient of variables with knowledge

Variables	r-value
Age (X_1)	.45
Education (X_2)	.412
Occupation (X_3)	.190
Farm Power (X_4)	.140
Farm implement (X_5)	.163
Family Income (X_6)	.348*
Socio-economic Status (X_7)	.283

Milch & small animals (X_8)	.134
Material possession (X_9)	.144
Cropping intensity (X_{10})	.564**
Irrigation Potential (X_{11})	.310
Social Participation (X_{12})	.262
Cosmopoliteness (X_{13})	.314
Credit orientation (X_{14})	.780**

The 4, reveals that the variable, cropping intensity came out as an important predictor because its b-value was found next in order in terms of magnitude and direction. Next in order, variable, education (X_2) is showing significant contribution towards the dependent variable. Education is a highly inter related variable with gain in knowledge. The variable family income also emerged a contributing in positive direction. Income of the family is driving force to Kisan Mitra to gain more & more knowledge about production technology. Finally all the variables taken together explained 68.49 per cent of variability towards the dependent variable. This indicates that there are need to identify some more potent factors in future study for better explanation of variability.

Table 4: Relative contribution of independent variables towards gain in knowledge of Kisan Mitra Regression coefficients Constant a = 17.372

Variables	Beta coefficient	S.E.	*t*-value
Age (X_1)	1.542	.487	1.001
Education (X_2)	2.219	0.5277	4.206*
Occupation (X_3)	2.729	2.420	1.128
Farm Power (X_4)	1.463	0.8425	1.798
Farm implements (X_5)	3.981	2.105	1.091
Family income (X_6)	.600	.24	2.50*
Socio-economic status (X_7)	0.168	1.312	.128
Milch & small animals (X_8)	1.309	1.821	.718
Material possession (X_9)	1.820	2.798	.550
Cropping intensity (X_{10})	4.28	1.001	4.275*
Irrigation potential (X_{11})	4.260	5.061	.842
Social participation (X_{12})	3.497	4.714	.742
Cosmopoliteness (X_{13})	0.584	.428	1.366
Credit orientation (X_{14})	6.170	1.48	4.168*

*-Significant at 0.05 level of probability, R^2=68.49

Table 5, present the correlation coefficients between the independent variable with change in attitude of Kisan Mitra as consequential effect of training. A critical look at the r values reported in the table elucidates that there exists varying level of association of independent variables with the dependent variable. The variable age was found to be negatively associated with change in attitude and also it was found to be significant. This indicates that young age group of Kisan Mitras have tendency for better change in attitude. Education level in this case also emerged to bear positive and significant association with dependent variable. Rest of the variables under the study though exhibited positive association with change in attitude but r values so obtained in these cases were found to be non-significant. The positive and significant association demands for consideration when wish to accelerate the level of attitudinal changes.

Table 5: Correlation co-efficient of variables with change in attitude

Variables	r-value
Age (X_1)	-.360
Education (X_2)	.438*
Occupation (X_3)	0.142
Farm Power (X_4)	0.100
Farm implement (X_5)	0.159
Family Income (X_6)	.174
Socio-economic Status (X_7)	.442*
Milch & small animals (X_8)	.014
Material possession (X_9)	.212
Cropping intensity (X_{10})	.341*
Irrigation Potential (X_{11})	.132
Social Participation (X_{12})	.494*
Cosmopoliteness (X_{13})	.149
Credit orientation (X_{14})	.614*

Table 6, indicated that variable credit orientation (X14) emerged as better contributor in comparison to other variables. The b-value was found to statistically significant. It is well known truth that attitudes by and large leads to action and Kisan Mitra having high orientation towards credit an indispensible factor of production can be manipulated to have still better impact. The variable education (X_2) further emerged as significant contributor towards attitude formation. It makes positive contribution and great motivator for synchronization of internal factors towards positive thinking and formation of positive feeling towards any object. This amply justifies for consideration of this factor for positive attitudinal formation. All the variables taken together explained 56.49 per cent of variability towards the dependent variable. The findings are in agreement with results obtained by Kumari, A.R [5].They has also explained that variable credit orientation emerged as better contributor in comparison to other variables.

Table 6:Relative contribution of independent variables towards gain in attitude of Kisan Mitra
Regression coefficients Constant a = 9.718

Variables	Beta coefficient	S.E.	t-value
Age (X_1)	3.694	2.864	1.289
Education (X_2)	0.3282	0.1280	2.585*
Occupation (X_3)	.609	.587	1.038
Farm Power (X_4)	1.024	2.043	.795
Farm implements (X_5)	.703	.511	0.377
Family income (X_6)	.493	1.163	.426
Socio-economic status (X_7)	.644	.213	3.103*
Milch & small animals (X_8)	.087	.162	1.555
Material possession (X_9)	.295	.679	.434
Cropping intensity (X_{10})	.214	.425	.505
Irrigation potential (X_{11})	.415	1.227	.338
Social participation (X_{12})	0.4262	0.1300	3.278*
Cosmopoliteness (X_{13})	.291	.200	1.939
Credit orientation (X_{14})	.6688	.1898	3.523*

*-Significant at 0.05 level of probability, R^2= 56.496

Table 7, presents the level of association of the independent variables with adoption. Adoption of technology is governed by interactional effects of variety of factors directly or indirectly. The r value reported in the table indicates varying level of association with the dependent variable. The variable Age (X_1) exhibited significant association with dependent variable but in negative direction. This can be interpreted that young age Kisan Mitra are prone to adoption of technology in comparison to old age Kisan Mitra. Obviously, it seems logical and justified also. Again, variable education emerged to hold positive and significant association with adoption. It has been proved to be bearing such kind of association by number of past researches and r value here also was the same line.

Shipra, K [6]also reported that the variable age was found to be negatively associated with change in attitude and also it was found to be significant impact on Mushroom cultivation training programme.

Table 7: Correlation co-efficient of variables with adoption

Variables	r-value
Age (X_1)	-.498*
Education (X_2)	.649**
Occupation (X_3)	.148
Farm Power (X_4)	.387*
Farm implement (X_5)	.147
Family Income (X_6)	.202
Socio-economic Status (X_7)	.187
Milch & small animals (X_8)	.149
Material possession (X_9)	.133
Cropping intensity (X_{10})	.786**
Irrigation Potential (X_{11})	.389*
Social Participation (X_{12})	.178
Cosmopoliteness ($X_{.13}$)	.214
Credit orientation (X_{14})	.664*

Table 8,depicts the relative contribution of independent variables towards adoption. The variable age (X_1) emerged as the most important factor. The magnitude of contribution towards the dependent variable was found to be high in comparison to other factors andits beta coefficient was noticed to be statistically

significant. It is generally perceived and established by past researches that young aged farmers have shown better receptivity for change and more prone to accept new technology in real farming. The variable cropping intensity emerged as potential contributor in order next to variable age (X_1) though the direction of contribution was opposite to each other, one contributing negatively and other positively. Probably Kisan Mitra who have high level of cropping index have tendency to get influenced at adoption level. The variable cosmopliteness (X_{13}) was found to make contribution in positive direction with significance level at 0.05 level of probability. The exposure of Kisan Mitra and their cosmopolite nature was found to affect adoption level. Many researches in the past also have shown this nature of finding. The variable credit orientation was also noticed towards making significant contribution towards the dependent variable. The R^2 value altogether explained 78.84 per centof variability towards the dependent variable. These findings are in agreement with results obtained by Singh .R [7] by whom it was found that above mentioned variable cropping intensity emerged as potential contributor in order next to variable agethough the direction of contribution was opposite to each other, one contributing negatively and other positively.

Table 8: Relative contribution of independent variables towards gain in adoption of Kisan Mitra

Variables	Beta coefficient	S.E.	t value
Age (X_1)	-07.428	1.680	4.421*
Education (X_2)	2.476	.614	4.032*
Occupation (X_3)	.1247	3.831	.343
Farm Power (X_4)	4.327	1.714	2.524*
Farm implements (X_5)	5.141	3.158	1.628
Family income (X_6)	7.992	7.196	1.111
Socio-economic status (X_7)	1.457	1.969	.740
Milch & small animals (X_8)	3.407	2.731	1.248
Material possession (X_9)	3.773	4.197	0.899
Cropping intensity (X_{10})	5.564	1.410	3.946*
Irrigation potential (X_{11})	3.894	1.280	3.042*
Social participation (X_{12})	7.824	7.072	1.004
Cosmopoliteness (X_{13})	1.500	.600	2.500*
Credit orientation (X_{14})	.7843	.1828	4.290*

*-Significant at 0.05 level of probability, R^2= 78.841

CONCLUSION
The study pointed out that there had been gain in knowledge, changes in attitude and improvement in level of adoption of Kisan Mitra as consequential effect of training. The gain was not uniform and it exhibited differential nature. The training therefore demands for action at level of host institution and sponsoring organization. There is an emergent need to identify experience trainer and selection of right kind of trainees for specific programme. The study also pointed out the all the behavioral components taken under study were influenced by variety of factors. These inherent factors tend to produce influence on the trainees on the level of receptivity and its translation into action. These factors should be taken into consideration. Those variables which were found to exert positive influence need to manipulate to get better results.

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