



Research Article

KNOWLEDGE OF IMPROVED SOYBEAN PRODUCTION TECHNOLOGY BY BENEFICIARIES UNDER ATMA PROGRAMME IN SEHORE DISTRICT OF MADHYA PRADESH: A STUDY

HARIYALE VIJESH, SHARMA ABHILASHA*, YADAV DHARMENDRA AND PATHAK K.N.

Department of Extension Education, RAK Agriculture College, Sehore, Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalya, Gwalior, 466001, Madhya Pradesh India

*Corresponding Author: Email - abhilashasharmakcc@gmail.com

Received: June 28, 2018; Revised: July 05, 2018; Accepted: July 06, 2018; Published: July 15, 2018

Abstract: The present study was conducted in Sehore district of Madhya Pradesh during 2013-14 at Department of Agricultural Extension, R.A.K. College of Agriculture Sehore (M.P.). The study revealed that there was a significant difference between knowledge level of beneficiaries and non beneficiaries. The study also revealed that the socio-economic and psychological attributes were found positive and significant association with beneficiaries and non significant.

Keywords: ATMA Programme, Knowledge, Improved Soybean Production Technology, Demonstration, Farmers training and Beneficiaries

Citation: Hariyale Vijesh, *et al.*, (2018) Knowledge of Improved Soybean Production Technology by Beneficiaries under Atma Programme in Sehore District of Madhya Pradesh: A Study. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 10, Issue 13, pp.- 6597-6698.

Copyright: Copyright©2018 Hariyale Vijesh, *et al.*, This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Introduction

The Agricultural Technology Management Agency (ATMA) is involved in agricultural activities for sustainable agricultural development in the district of India. It is fact that the effective extension activities like trainings and field demonstrations would result in increasing the level of knowledge of beneficiaries in farming business. For development of production and productivity of soybean in the district various extension programme are executing by personnel of ATMA programme. The programme is said to be successful if knowledge and adoption of the soybean growers can bring desirable changes in their behaviour pertaining to the use of new practices and technologies in farming. Hence, the present study was conducted.

Methodology

Sehore district is one of the important soybean growing area and the ATMA personnel conducted various training programmes, demonstrations and other extension activities for increasing production and productivity of soybean through adoption of improved production technology. Hence, Sehore district will be selected purposively for the present study. There are total 5 blocks in Sehore district. Out of 5 blocks only one Sehore block will be selected purposively for this study due to awareness and convenience of the researcher. Sehore block comprises total 306 villages, out of which 5 villages will be selected randomly. A village wise list of beneficiaries of ATMA programme will be prepared with the help of information obtained from Department of Agriculture Sehore and from beneficiaries list 13 beneficiaries will be selected from each village on the basis of random sampling method. For comparative study between beneficiaries and non beneficiaries, the 5 adjoining villages will be selected and from each village 13 non beneficiaries soybean growers will be selected randomly. Thus, the total 130 respondents *i.e.* 65 beneficiaries and 65 non beneficiaries will be the sample of the study. The data was collected with the help of pretested interview schedule which was prepared on the basis of objectives of the study. The data was collected for the year 2013-14. The appropriate statistical tools like percentage, mean, standard deviation, chi square, coefficient of association and "t" test was used for statistical analysis.

Results & discussion

Table-1 Difference in level of knowledge of beneficiaries and non beneficiaries regarding soybean production technology

SN	Practices	Beneficiaries		Non Beneficiaries	
		Total Score	Mean Score	Total Score	Mean Score
1	Ploughing and land preparation	77	1.18 ^a	64	0.98 ^a
2	Improved varieties of soybean	74	1.14	67	1.03 ^a
3	Sowing method of seed	71	1.09	61	0.94
4	Recent knowledge about seed treatment	85	1.31 ^a	62	0.95
5	Depth of seed and distance between row to row	68	1.05	66	1.02 ^a
6	Use of rhizobium and PSB culture	73	1.12	58	0.89
7	Pattern of fertilizer application	76	1.17	62	0.95
8	Use of bio-fertilizer	79	1.22 ^a	56	0.86
9	Use of weedicide and their method of application	75	1.15	57	0.88
10	Use of plant protection measures	78	1.20 ^a	60	0.92
Over all mean average		76	1.17	62	0.95
t' value		(calculated 't' = 2.72*), (table value = 2.26)			

* Significant at 5% level of significance with 9 d.f., ^a = Higher value than overall mean score
Ten areas under package of practices of soybean production technology were considered to examine the knowledge level of beneficiaries and non beneficiaries. It is found that difference in the knowledge level of beneficiaries and non beneficiaries in respect of soybean production technology. The average means score values of overall knowledge of all components of soybean production technology showed that it was 1.17 and 0.95 of beneficiaries and non beneficiaries. On the other hand, the calculated 't' value 2.72 at 5 percent level with 9 d.f. was found to higher than the table value of 't' 2.26. These parameters declared to be significant differences in the level of knowledge among beneficiaries and non beneficiaries of soybean production technology. Therefore, it may be concluded that the data provides enough evidence the impact of ATMA programme on level of knowledge of soybean production technology. This clearly shows that as regard the knowledge level, there was a significant difference between beneficiaries and non beneficiaries [1,2].

Table-2 Distribution of beneficiaries and non beneficiaries according to their overall knowledge regarding soybean production technology

Attribute	Categories	Beneficiaries		Non beneficiaries	
		Frequency	Percentage	Frequency	Percentage
Level of knowledge	Low	15	23.08	19	29.23
	Medium	34	52.31	30	46.15
	High	16	24.62	16	24.62
	Total	65	100.00	65	100.00

The data presented in [Table-2] showed that majority of the beneficiaries 52.31 percent found to pertaining medium knowledge regarding various components of soybean production technology under ATMA programme followed by high knowledge 24.62 percent and low knowledge 23.08 percent. The medium knowledge of beneficiaries might be attributed due to low and medium level of education, medium social participation, medium extension participation and high information seeking behaviour. This finding is in conformity with the findings as reported [2-5].

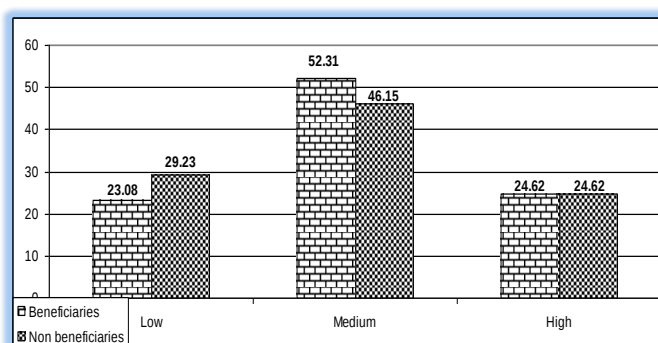


Fig-1 Distribution of beneficiaries and non beneficiaries according to their overall knowledge regarding soybean production technology

Table-3 Association between independent variables with the level of knowledge of beneficiaries and non beneficiaries regarding soybean production technology:-

Name of Attributes	Beneficiaries X ²	Non Beneficiaries X ²
Age	7.8 N.S.	8.7 N.S.
Education	11.4*	9.6*
Size of land holding	12.1*	8.0 NS
Social participation	10.0*	8.1 NS
Extension participation	10.0*	9.8*
Level of training attend	10.3*	7.3 NS
Management orientation	10.2*	13.8*
Information seeking behavior	13.0*	8.4 NS
Socio-economic status	11.9*	9.9*
Innovativeness	5.6 NS	8.4 NS

* Significant at 5% level of significance with 9 d.f., NS: Non Significant

Summary

It was concluded that most of the beneficiaries found to pertaining medium knowledge regarding various components of soybean production technology under ATMA programme followed by high and low knowledge. This clearly shows that trained beneficiaries get advantage of seed treatments, land preparation and use of bio-fertilizers as compared to non trained farmers. The study also Concluded that the association between independent variable and knowledge level of beneficiaries have positive and significant relationship in the comparison of non beneficiaries farmers.

Application of research: This study is useful for assess the impact of ATMA programme in present knowledge level of soybean production technology in the research area

Application of research: Soybean production technology

Acknowledgement / Funding: Author thankful to R.A.K. Agriculture College, Sehore, Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya, Gwalior, 466001, Madhya Pradesh India

***Research Guide or Chairperson of research: Dr K. N. Pathak**

University: Rajmata Vijayrasidhya Krishi Vishavvidhalya, Gwalior, 466001

Research project name or number: MSc Thesis

Author Contributions: All author equally contributed

Author statement: All authors read, reviewed, agree and approved the final manuscript

Conflict of Interest: None declared

Ethical approval: This article does not contain any studies with human participants or animals performed by any of the authors.

References

- [1] Chaudahari J.K., Patel A.J. and Patel J.K. (2012) *Gujarat Journal of Ext. Edu.*, 23,108-110.
- [2] Goyal, Jhanak Singh (2010) *A study of training needs as perceived by the tribal farmers with respect to soybean cultivation of Ichhawar block district Sehore of Madhya Pradesh. M.Sc.(Ag) Thesis unpublished J.N.K.V.V. Jabalpur.*
- [3] Kumar S. (2009) *Technological gap in adoption of improved cultivation practices by the soybean growers. M.Sc. (Agri.) Thesis, Univ. Agric. Sci., Dharwad, Karnataka (India)*
- [4] Patel N. (2013) *International Journal of Innovative Research and Studies*, 2(8), 290-296.
- [5] Soni Monika (2011) *A study on Agricultural Technology Management Agency (ATMA) Project in context to beneficiaries of soybean demonstration under Sanwer Block of Indore District, M.P. M.Sc. (Ag.) Thesis Submitted to the Rajmata VijayarajeScindia Krishi Vishwa Vidyalaya, Gwalior.*