



## Research Article

# IMPACT OF FRONTLINE DEMONSTRATION OF CHICKPEA IN SEHORE DISTRICT OF MADHYA PRADESH

SHARMA ABHILASHA\* AND PATHAK K.N.

R.A.K. Agriculture College, Sehore, Rajmata Vijayaraje Scindia Krishi Vishwavidyalaya, Gwalior, 474002, Madhya Pradesh

\*Corresponding Author: Email-abhilashasharmakcc@gmail.com

Received: August 03, 2016; Revised: September 15, 2016; Accepted: September 17, 2016; Published: October 30, 2016

**Abstract-** The present study was conducted in the village Kankadkheda Sehore block of Sehore district of M.P. India in the year 2012-13. The main objective of the study is 1) to know the impact of Front Line Demonstration on adoption of chickpea production technology and 2) To find out the association between socio-personal and economic attributes with economic status improved due to Front Line Demonstration. The study revealed that 25.00 per cent farmers decreased in adopter condition over non adopter condition. On the other hand, as observed in low category in partial and full adoption condition 17.50 and 7.50 per cent farmers increased in adopter condition over non adopter condition respectively. Characteristics of adopter of Front Line Demonstration of chickpea growers were found to be positively and significantly correlated with socio economic status.

**Keywords-** Front line Demonstration, Chickpea Growers, Adopters and Non adopters.

**Citation:** Sharma Abhilasha and Pathak K.N., (2016) Impact of Frontline Demonstration of Chickpea in Sehore district of Madhya Pradesh. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 8, Issue 52, pp.-2610-2611.

**Copyright:** Copyright©2016 Sharma Abhilasha and Pathak K.N., 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.

**Academic Editor / Reviewer:** Dr P. Lakshmi Manohari

## Introduction

Madhya Pradesh is one of the largest chickpea growing State in the Country followed by Uttar Pradesh, Rajasthan, Haryana, Maharastra, Bihar, Karnataka and Punjab respectively. The higher area under gram cultivation in Madhya Pradesh is due to suitability of agro-climatic condition and successfully can be grown in rainfed area or low irrigated area and unfertile land with more profit fetched by the farmers. It can be say that chickpea production in Madhya Pradesh has its own importance for developing economy of state. In Madhya Pradesh, the area under gram has found remarkably increased from 1495 thousand hectares to 3.00 million hectare during 1970-2010. Similarly, production has increased from 726 thousand tonnes to 2.75 million tonnes during this period. The average yield of gram in the State is found to 916 kilogram per hectare, which is more as compare to all India average yield of 400-650 kilogram per hectare but lower than the potential yield available in the State i.e. about 1200 kilogram per hectare.

Chickpea is also one of the important pulse crops of district Sehore in Madhya Pradesh. The higher potential yield of chickpea on progressive farms shows that the productivity of chickpea per unit of area can be increased, yet its yield per unit of area is not satisfactory. It is high time to exploit production potential of gram (chickpea) by strengthening adoption of improved/ recommended chickpea production technology on farmer's field. Emphasis was given by both Scientists and Extension Officers in adoption and diffusion of production technologies through Front line demonstrations. Keeping the present scenario in view an attempt was made to understand the present status of chickpea front line demonstrations in transfer of technology with the following objectives.

1. To know the impact of frontline demonstration on adoption of chickpea production technology.
2. To find out the association between socio-personal and economic attributes with economic status improved due to frontline demonstration

## Materials and Methods

The study was carried out on an ex-post facto research design since many Front Line Demonstrations have been undertaken over a period of time. Sehore district,

block and Kankadkheda village were selected purposively because of more area under chickpea cultivation and also the convenience of the researcher.

Among the chickpea growers, some farmers adopted Front Line Demonstrations and others were not adopted by following traditional chickpea cultivation. Eighty respondents were selected from both the categories, 40 from each in the same village. The data were collected through a well-structured and pre-tested interview schedule by the researcher. The collected data has been analyzed by using appropriate Statistical tests like Frequency, Percentage, Mean deviation and correlation coefficient (r) and interpreted the data.

## Result and Discussion

The results and discussions of the study on the extent and impact of adoption of improved chickpea production technologies by the adopter and non-adopter categories are presented below:

**Extent of adoption:** The Extent of adoption of improved chickpea production technology is studied in both adopter and non-adopter categories as depicted below

**Table-1** Extent of adoption by FLD adopter Category

S.No.	Agricultural technology	No. of respondents (N=40)		
		Full adoption	Partial adoption	Low adoption
1.	Field preparation	14 (35.0%)	22 (55.0%)	4 (10.0%)
2.	High yielding varieties of chickpeas	18 (45.0%)	18 (45.0%)	4 (10.0%)
3.	Proper sowing of seed	15 (37.5%)	20 (50.0%)	5 (12.5%)
4.	Balance use of manure and fertilizer	14 (35.0%)	22 (55.0%)	4 (10.0%)
5.	Use of weedicide	18 (45.0%)	19 (47.5%)	3 (7.5%)
6.	Plant protection measure	18 (45.0%)	19 (47.5%)	3 (7.5%)
7.	Irrigation	15 (37.5%)	20 (50.0%)	5 (12.5%)
8.	Overall technology	16 (40.0%)	20 (50.0%)	4 (10.0%)

The data in [Table-1] depicted that majority of the farmers (50.00%) possessed partial adoption of total chickpea production technology considered in the study followed by (40.00%) farmers had full adoption and (10.00%) farmers had low adoption of chickpea production technology respectively [1].

**Table-2** Extent of adoption by FLD non-adopter Category

S.No.	Agricultural technology	No. of respondents (N=40)		
		Full adoption	Partial adoption	Low adoption
1.	Field preparation	12 (30.0%)	15 (37.5%)	13 (32.5%)
2.	High yielding varieties of chickpeas	12 (30.0%)	13 (32.5%)	15 (37.5%)
3.	Proper sowing of seed	13 (32.5%)	13 (32.5%)	14 (35.0%)
4.	Balance use of manure and fertilizer	14 (35.0%)	11 (27.5%)	15 (37.5%)
5.	Use of control measures	13 (32.5%)	12 (30.0%)	15 (37.5%)
6.	Plant protection measure	14 (35.0%)	13 (32.5%)	13 (32.5%)
7.	Irrigation	13 (32.5%)	14 (35.0%)	13 (32.5%)
8.	Overall technology	13 (32.5%)	13 (32.5%)	14 (35.0%)

The data in [Table-2] depicted that majority of the farmers (35.00%) possessed low adoption of total chickpea production technology considered in the study followed by (32.50%) farmers had partial and full adoption (equal) of chickpea production technology respectively.

**Table-3** Impact of Front Line Demonstration on adoption of production technology

S.No.	Category	Adopter Percentage	Non-adopter Percentage	Additional over non-adopter Percentage
Extent of Adoption				
1	Low	10.00	35.00	-25.00
2	Partial	50.00	32.50	+17.50
3	Full	40.00	32.50	+7.50

It is apparent from the above [Table-3] that there is clear variation in percentage score obtained by adopters and non-adopter farmers of frontline chickpea demonstration in respect of adoption level. It is evident that the chickpea growers, who have adopted the frontline demonstration and used higher chickpea production technology, fetched higher adoption. In case of level of adoption, as observed in low category, 25.00 per cent farmers decreased in adopter condition over non adopter condition. On the other hand, in partial and full adoption condition 17.50 and 7.50 per cent farmers increased in adopter condition over non adopter condition respectively. This finding is in conformity with the findings as reported by [3,5,8].

**Table-4** Relationship of socio-personal and economic characteristics with economic status of adopter of frontline demonstration chickpea growers

S.No.	Characteristics	'r' value
1.	Age	0.116
2.	Education	0.708**
3.	Size of land holding	0.165
4.	Level of employment	0.478**
5.	Level of income	0.343*
6.	Social Participation	0.355*
7.	Extension Participation	0.322*
8.	Economic motivation	0.007
9.	Attitude towards improved practices	0.140

\*\*= Significant at p= 1%

\*= Significant at p= 5%

The results of correlation analysis in above [Table-4] revealed that characteristics namely education (0.708\*\*) and level of employment (0.478\*\*) were positively and significantly at 0.01 per cent level related to socio economic status of adopter

farmers of frontline chickpea demonstration respectively. On the other hand, characteristics namely level of income (0.343\*), social participation (0.355\*), and extension participation (0.322\*) were positively and significantly at 0.05 percent level related to socio economic status of adopter farmers of frontline chickpea demonstration respectively.

Thus, it can be concluded that all the above characteristics of adopter of frontline demonstration of chickpea growers were found to positively and significantly correlate with socio economic status, indicating that higher in frequency of socio-personal and economic characteristics of farmers results higher the socio economic status of chickpea growers. This finding is in conformity with the findings as reported by [2,4,6,7].

## Conclusion

The study concluded that in case of adopter farmers, majority of the respondent were in partial level of adoption followed by full and low category while in case of non-adopter farmers, majority of the respondent were in low level of adoption followed by partial and full category (equal) regarding adoption of chickpea production technology/ practices respectively. On the other hand, the socio economic characteristics of adopter of frontline demonstration of chickpea growers were found to positively and significantly correlate with socio economic status.

Hence, the extension machinery working in the Sehore district has to educate the farmers to create awareness on the impact of FLDs to improve the adoption of production practices in chickpea for improving the State production and Productivity

## Conflict of Interest: None declared

## References

- [1] Alshi M.R., Bhole B.D. and Bidwai P.N. (1988) *Indian J. Agril. Econ.*, 43(3), 525-26.
- [2] Chouhan D.K. (2007) A study of the technological knowledge proddedded by the tribal cotton growers and its adoption in Manawar block of District Dhar (M.P.). *M.Sc. (Ag.) Thesis (Unpublished)*, R.A.K. College, JNKVV, Jabalpur.
- [3] Jangade J.P. (2009) A study of impact of improved technology on the socio-economic status of cotton growers in Khargone district of Madhya Pradesh. *M.Sc(Ag) Thesis, College of Agriculture Jabalpur*.
- [4] Khan P.M. (2004) Factors associated with adoption and discontinuance of selected farm innovation by big, small, and marginal farmers. *2<sup>nd</sup> National Extension Education. Society of Extension Education, Agra and MPUAT, Udaipur*. Pp 82.
- [5] Patel M.M., Amit Chatterjee and Bhargav A.K. (2003) *Indian Journal of Pulses Research*, 16(1), 36-38.
- [6] Patidar S.K. (2005) A study of technological knowledge possessed by the cotton growers and its actual adoption in Badwaha block of Harbone district (M.P.). *M.Sc(Ag) Thesis, College of Agriculture Jabalpur*.
- [7] Sakharkar V.S, Nikhade D.M. and Bhole R.S. (1992) *Maharashtra J. Ext. Edu.*, 16 (3), 1-7.
- [8] Sharma R.K. and Shrama D.D. (1997) *Indian J. Extn. Edu.*, 24(3&4), 19-20.