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Impact of Different Extension Teaching Methods for Adoption of Scientific Package of Practices of Chickpea

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ABSTRACT

Chickpea is the main *rabi* pulse crop under rainfed condition in Bundelkhand region of Uttar Pradesh. There is wide variation in the yield of chickpea across the 7 districts of Bundelkhand region of U.P. because of the low adoption of recommended package of practices of chickpea among the farming community. To accelerate adoption among farming community extension teaching methods plays a crucial role. Krishi Vigyan Kendra, Banda has initiated the on farm trial on impact assessment of different extension teaching methods for adoption of scientific package of practices of chickpea. The experimental research design pre and post with control group was used to conduct this study. In this study one control group (check) of 10 farmers was kept and one training on scientific package of practices of chickpea and demonstration (Cluster Frontline Demonstration) on chickpea was given to 10-10 farmers and their level of adoption of scientific package of practices of chickpea crop was assessed and it was found that the level of adoption has increased by 15.65 and 24.82 per cent after exposure to training and demonstration respectively to the farmers and both the methods were found to be significant at 0.01 level of significance for enhancing level of adoption among farmers. Therefore, potentialities of these methods could be best exploited by field extension functionaries and other stakeholders in enhancing level of adoption among farmers.

Keywords: Adoption, Chickpea, Cluster frontline demonstration, On farm trial, Scientific package of practices, Training

INTRODUCTION

Pulses are chief source of protein and integral part of vegetarian human diet. The per capita availability of pulses in India is @ 42 g per day against the recommended dose of pulses for adult male and female 60 g and 55 g per day respectively (Tiwari and Shivhare, 2016). India is the largest producer, importer and consumer of pulses in the world, accounting for 25 per cent of global production, 15 per cent trade and 27 per cent consumption. A variety of pulses are being grown in India including Chickpea (40.00%), Pigeonpea (18.00%), Blackgram (11.00%), Greengram (9.00%), Lentil (8.00%), Field pea (5.00%) and others (9.00%) are grown on 22.00–24.00 million ha. of area, producing 13.00–15.00 Mt. of grain with an average productivity of 6.0–6.5 tons/ha (Kumar and Kumawat, 2019). In Uttar Pradesh, Bundelkhand region is well suited for pulses production due to its unique agro-climatic condition and this region is also known as bowl of pulses (Narain *et al.,* 2014). Chickpea is the major crop of *rabi* season in Banda District. In Banda district chickpea is grown in 57549 ha. area with average

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productivity of 8.38 q/ha. (Annual report 2018-19). As compared to cereals, most of the pulses still wait for significant breakthrough in terms of production and productivity (Kumar and Kumawat, 2019). To increase the production and productivity of pulse crop Government of India has launched several programmes like National Food Security Mission (NFSM) –Pulse under which training and Demonstration were given to farmers for better adoption of scientific technologies. Despite all the efforts made by Government to increase production and income of farmers by creating awareness of improved technologies, it was observed that many farmers still follow the old ways of farming, not adopting the improved practices/ technologies of crop production. Extension teaching methods are playing crucial role in imparting new knowledge and skills to the rural people by drawing their attention towards such technologies, thereby arousing their interest and helping them to have a successful experience of the new practice (Ray, 2015). On this background the present study was undertaken by Krishi Vigyan Kendra, Banda with the specific objective to assess the impact of different extension teaching methods for adoption of scientific package of practices of chickpea by the farmers of Banda district of Bundelkhand region.

METHODOLOGY

An experimental research design (pre and post with control group) was used. In this study one control group (check) of 10 farmers was kept and one training on scientific package of practices of Chickpea and Cluster Frontline Demonstration (CFLD) on Chick pea was given to 10-10 farmers and their level of adoption of scientific package of practices of chickpea crop was assessed. The difference in adoption level of the respondents was calculated by taking the pre exposure score and post exposure score. Difference in pre and post exposure score in percentage was taken as an indicator for impact of extension methods. The primary data on level of adoption were collected through pre-tested, semi-structured interview schedule method. The data analysis was done by descriptive statistic and paired 't' test.

RESULTS AND DISCUSSION

The extent of adoption of production technology of chickpea has been assessed by seventeen packages of practices of Chickpea from seed treatment to post harvest management. It can be clearly seen in Table 1 that nearly two fifth of respondent (43.34%) belonged to medium category, followed by 33.33 per cent and 23.33 per cent in low and high categories respectively. This is due to the fact that farmers were having medium level of mass media exposure and majority had not received any training related to production technologies of chickpea crop.

Table 1: Level of adaptation of scientific package of practices of chickpea (N=30)

Category	Frequency	Percentage
Low (<0.3)	10	33.33
Medium (0.3-0.46)	13	43.34
High (>0.46)	7	23.33

The impact of different extension methods *viz*. training and demonstration (CFLD) was assessed on adoption of scientific package of practices of chickpea. It could be clearly seen from Table 2 that among two methods, demonstration followed by training emerged as most impactful method in communicating the scientific package of practices of chickpea. The mean difference in level of adoption was found to be 15.65 and 24.82 per cent after exposure of training and demonstration respectively. It might be due the fact that demonstration worked on the principle of seeing is believing. Farmers believe what they see and further they will adopt it (Devi *et al.*, 2017). No significant difference between pre and post scores of check was found. However, it was observed that effect of training and demonstration was significant at 0.0 level of significance for increasing level of adoption. This implied that the information provided by these methods is most likely to reach the farmers. Thus, the potentialities

Table 2: Impact of different extension methods in adoption of scientific package of practices of chickpea

Extension methods	Extent of adoption (%)			t-value
	Pre-test	Post-test	Difference	
Check (n=10)	35.29	37.06	1.76	1.83
Training (n=10)	38.59	54.24	15.65	7.15**
Demonstration (n=10)	40.53	65.35	24.82	14.33**

***Significant at 1 per cent level of significance*

of these methods could be best exploited by field extension functionaries and other stakeholders to increase the adoption among the farmers regarding scientific package of practices of chickpea and other crops.

CONCLUSION

Nearly half of the respondents were in medium level of adoption of scientific package of practices of chickpea, thus, a series of awareness programmes, field visits, field days, other interaction meetings should be organized for better reach of scientific Package of practices of chickpea. Extension methods like training and demonstration were found impactful in terms enhancing level of adoption of scientific package of practices of chickpea. Thus these extension methods need to be popularized and used efficiently by extension organisations to obtain maximum productivity.

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