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Impact of Frontline Demonstration (Fld's) On Adoption Behavior of Soybean Growers under the K.V.K. In Ujjain District of M.P

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Abstract: *The main objective of the FLD is to demonstrate newly released crop production and protection technology and its management practices on the farmer's field by the scientists themselves before taking it into main extension system of State Department of Agriculture under different agro-climatic regions and in real farming system. Presently the FLDs are mainly conducted through KVKs in all over the country. This is the mandatory function of KVK to remove lack of knowledge and constraints in the adoption of improved soybean production technology. Keeping all these views in mind, the present investigation entitled "Study on knowledge and adoption level of soybean growers through Front Line Demonstrations (FLDs') in Ujjain district of M.P." For this purpose the data collected on a well prepared interview schedule. through personal interview method by the investigator. The major findings of the study is majority of the respondents (beneficiaries of FLD programme and non-beneficiaries) possessed medium level of adoption level. The 't' test indicated that there is a significant difference between scores mean of both the group. Thus, it can be stated that, there is an impact of FLD programme on the adoption level of the soybean growers.*

I. Introduction

The oilseed scenario in India has undergone a dramatic change in the last two decades years. The demand for vegetable oil, both for edible and non edible purposes is increasing at a faster rate. India is considered to be a paradise of oilseed crops having 19 and 10 per cent of total world's oilseed area and production, respectively. The Oilseeds are the second largest agricultural commodities in India after cereals accounting for about 14 per cent of the cropped area, contributing 5 per cent to the gross national product and 10 per cent of the value to all agricultural products (Anon., 2007).

Soybean [Glycine max (L.) Merrill] has established its recognition as both a pulse and an oilseed crop and ranks third among oilseed crops grown in India. It has very high potential among grain legume crops for combating acute malnutrition. Soybean is also a good source of dietary fibre, calcium, magnesium, phosphate, thiamine, riboflavin and niacin. Soybean has also been reported to have medicinal properties in combating diabetes, cancer, heart disease. Another significance of this crop is in its ability to fix atmospheric nitrogen. According to the FAO, 2006 the productivity of soybean in India is only 857 kg/ha against world average of 2293 kg/ha.

Soybean is known as the "GOLDEN BEAN" of the 20th Century. Though, Soybean is a legume crop, yet it is widely used as oilseed. Due to very poor cookability on account of inherent presence of trypsin inhibitor, it cannot be utilized as a pulse. It is now the second largest oilseed in India after groundnut. It grows in varied agro-climatic conditions. It has emerged as one of the important commercial crop in many countries. Due to its worldwide popularity, the international trade of soybean is spread globally. Several countries such as Japan, China, Indonesia, Philippines, and European countries are importing Soybean to supplement their domestic requirements for human consumption and cattle feed.

Global ranking in soybean production:

Major soybean growing countries and their production (million tons)

Country	2009	2010	2011	2012	2013
United states	80.7	91.4	90.6	84.2	82.1
Brazil	57	69	75.5	66.5	83.5
Argentina	32	54.5	49	40.1	53
China	15.5	15	15.1	14.5	12.6
India	9.1	9	9.8	11	11.5

Frontline Demonstration:

The frontline demonstration is to demonstrate newly released crop production and protection technologies and their management practices in the farmers' field under different agro-climatic regions and farming situations. The objective of Front Line Demonstration (FLD's) is to demonstrate newly released crop production and production technologies and their management practices on the farmers' field to study the

constraints of production, factors contributing for higher production and thereby to generate production data and feedback information. The frontline demonstration is different from the normal demonstrations conducted by the extension functionaries. FLDs are conducted under the close supervision of the scientists.

The KVK of Ujjain district (M.P.) was entrusted with the responsibility of conducting FLDs in Ujjain district of M.P. The main emphasis was to maximize production per unit area by using high yielding varieties of soybean in conjunction with the package and practices, while a large number of studies have been made to discuss the yield potentialities and procedures for conducting these demonstrations.

Objective

To compare the adoption level of beneficiaries and non- beneficiaries farmers on soybean crop under Frontline Demonstrations (FLDs).

II. Review of Literature

Jatav and Patel (2010) reported that the majority of the respondents (beneficiaries of FLD programme and non beneficiaries) possessed medium level of the scientific temperment .The mean value of scientific temperament of FLD beneficiaries eas higher than the mean score of scientific temperament of non beneficiaries.The't' test indicated that there is a significant difference between scores mean of both the group. Thus, it can be stated that, there is a positive impact of FLD programme on scientific temperament of wheat growers in Indore and Dewas district.

Kirar et al. (2006) reported that frontline demonstration programme was effective in changing attitude, skill and knowledge of improved practices of HYV of urd including adoption this also improved the relationship between farmers and scientist and built confidence between them. The farmers who adopted demonstration acted also as source of information and pure seed for wider dissemination of HYV of urd for the farmers. The productivity gain under FLD over traditional practices of urd cultivation created greater awareness and motivated the other farmers to adopt appropriate production technology of urd in the district. The selection of critical input and participatory approach in planning and conducting the demonstration definitely help in the farmers of technology to the farmers.

Singh et al. (2005) reported that the FLD was effective in changing the attitude, skill and knowledge of improved / recommended practices of high yielding variety of rice including adoption.

III. Material And Methods

The study was conducted on Krishi Vigyan Kendra (KVK) Ujjain was selected purposively for the study where the Front Line Demonstrations of soybean had been conducted in the year 2012-13.

On the basis of area, soybean is a major kharif crop. Krishi Vigyan Kendra Ujjain conducted FLD in 6 villages i.e. Tarana, Semalia, Jhardha, Narajpur, Berchhi, Amarikhedi which selected purposively.

Selection of respondents:

Out of the list of beneficiary farmers in the six selected villages 90 farmers were selected randomly. Equal number of farmers was selected from the list of non-beneficiary farmers randomly 15 farmers from each village. Thus, the total of 180 respondents was selected to constitute the sample of the study. The study details are as follows.

Patel and Tunver (2004) reported that the yield of groundnut was increased 24.05 per cent after FLD as compared to before frontline demonstration. It shows a positive impact of FLD on adoption of recommended practices.

Knowledge level:

Knowledge in the present study has been defined as "A body of understanding information possessed by farmer about a particular agricultural technology. In the present study, extent of scientific knowledge refers to the respondent's awareness and knowledge about recommended practices and new techniques used in soybean cultivation. For measuring extent of knowledge of the respondents, a list of practices of soybean cultivation was made. Questions were put to the respondents for which the answers were either 'yes' or 'no', and score was 1 for 'yes', and zero (0) for 'no'.

IV. Result And Discussion

Adoption level of beneficiaries and non- beneficiary's farmers on soybean crop under Frontline Demonstrations (FLDs).

The result revealed that out of total respondents, majority (45.00 %) had medium level of adoption. In case of beneficiary farmers, majority (50.00 %) had medium level of adoption. Similarly, in case of non-beneficiary farmers, majority 46.66 per cent had high level of adoption. The mean scores for FLD beneficiary

farmers and non- beneficiary farmers were 11.481 and 10.232, with standard deviation of 3.08 and 3.48, respectively. When the data were tested by applying t-test to know the difference between the adoption levels of both the categories of respondents, it was found that there is significant difference between the adoption of FLD beneficiary farmers and non- beneficiary farmers towards soybean production technology. Hence, the proposed null hypothesis is rejected and the original hypothesis that there is a significant difference between scores mean of both the group was, accepted it can be concluded that there was significant difference between the adoption levels of both the categories of respondents. Similar result was reported by Jatav, H.R. and M.M. Patel (2010), Kirar et al. (2006), Singh et al. (2005) and Patel and Tunver (2004).

Adoption level of beneficiaries and non- beneficiaries farmers on soybean crop under Frontline Demonstrations (FLDs): n=180

Table 4.10 shows percentage distribution of respondents according to their adoption level. It is obvious from the table that out of total respondents, 10.55 per cent had low level of adoption, while 45.00 per cent had medium and 44.44 per cent had high level of adoption.

In case of beneficiary farmers, 7.78 per cent had low level of adoption, while 50.00 per cent had medium and 42.22 per cent had high level of adoption. (figure 4.10)

Similarly, in case of non-beneficiary farmers, 13.33 per cent had low level of adoption, while 40.00 per cent had medium and 46.66 per cent had high level of adoption.

Table: Distribution of respondents according to their adoption level : . n=180

S.	Adoption level	Beneficiaries	Non-beneficiaries	Total
1.	Low (1 – 6)	07 (7.78)	12 (13.33)	19 (10.55)
2.	Medium (7 – 12)	45 (50.00)	36 (40.00)	81 (45.00)
3.	High (13 – 18)	38 (42.22)	42 (46.66)	80 (44.44)
	Total	**90 (100.00)**	**90 (100.00)**	**180 (100.00)**
	X	T1.481	10.232	
	S.D.	3.08	3.48	
	't'	**2.086***		

***** = Significant at 0.05 probability level.

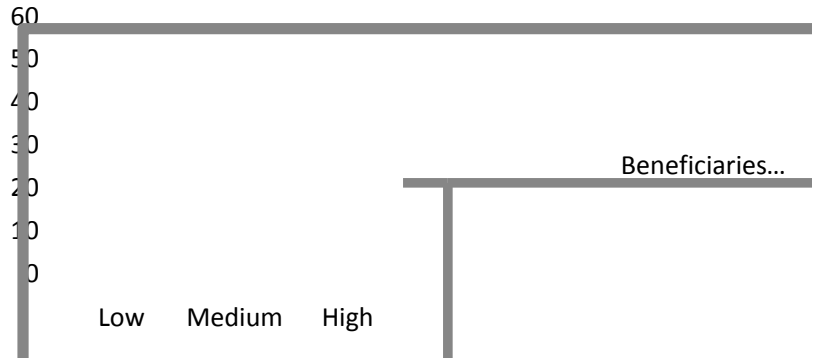

Figure: Distribution of respondents according to their adoption level

The mean scores for FLD beneficiary farmers and non- beneficiary farmers were 11.481 and 10.232, with standard deviation of 3.08 and 3.48, respectively. When the data were tested by applying t-test to know the difference between the adoption levels of both the categories of respondents, it was found that there was significant difference between the adoption of FLD beneficiary farmers and non- beneficiary farmers towards soybean production technology. Hence, the proposed null hypothesis is rejected and the original hypothesis that there is a significant difference between scores mean of both the group was accepted. It can be concluded that there was significant difference between the adoption levels of both the categories of respondents.

Major Findings

Majority of the respondents (beneficiaries of FLD program and non-beneficiaries) possessed medium level of adoption level. The mean value of adoption level of beneficiary farmers of FLD was higher than the mean score of adoption level of non-beneficiaries. The't' test indicated that there is a significant difference

between scores mean of both the group. Thus, it can be stated that, there is an impact of FLD programme on the adoption level of the soybean growers.

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