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**Rajiv Verma**

Department of Transfer of  
technology, MGCGVV,  
Chitrakoot, Satna, Madhya  
Pradesh, India

**Uttam Singh**

SRF, ICAR - National Institute  
of Biotic Stress Management,  
Raipur, Chhattisgarh, India

**Rewendra Kumar Sahu**

Ph.D. Scholar, Department of  
Agricultural Extension,  
I.G.K.V., Raipur, Chhattisgarh,  
India

## Constraints and suggestions perceived by soybean growers in front line demonstration on adoption of recommended technologies

**Rajiv Verma, Uttam Singh and Rewendra Kumar Sahu**

### Abstract

This investigation is an attempt to study the Front Line Demonstration (FLDs) in adoption of recommended technology by soybean growers. The study was carried out in four village of Khairagarh block, Rajnandgaon district of Chhattisgarh. Results shows that 57.50 per cent had low and only 15.00 per cent had high adoption level of recommended technologies. Thus, it can be concluded that maximum percentages (57.50%) of the soybean growers were found in medium adoption categories of recommended technologies. On the basis of study it was found that large majority of the soybean growers faced the constraints i.e. Lack of extension services timely (93.75%), Lack of proper training facilities (90.00%) and Lack of laborers (85.00%) was major constraints. The soybean grower's farmer given some suggestions they are Technical knowledge about new technology should provide to farmers timely (95.00%), Periodic meeting with RAEO's and subject matter specialist should be made sure (92.50%), Training programme should be organized by the KVK (87.50%) etc.

**Keywords:** front line demonstration, Adoption, Soybean growers

### 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 percent 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 percent to the gross national product and 10 percent of the value to all agricultural products (Anon., 2007).

Krishi Vigyan Kendra (Farm Science Centre) an innovative science-based institution, plays an important role in bringing the research scientists face to face with farmers. The main aim of Krishi Vigyan Kendra is to reduce the time lag between generation of technology at the research institution and its transfer to the farmers for increasing productivity and income from the agriculture and allied sectors on sustained basis. KVKs are grass root level organizations meant for application of technology through assessment, refinement and demonstration of proven technologies under different 'micro farming' situations in a district. Front line demonstration (FLD) is a long term educational activity conducted in a systematic manner in farmer field to worth of a new practice/technology. Farmers in India are still producing crops based on the knowledge transmitted to them by their forefathers leading to a grossly unscientific agronomic, nutrient management and pest management practices. As a result of these they often fail to achieve the desired potential yield of various crops and new varieties.

Front-Line Demonstration is the new concept of field demonstration evolved by the Indian Council of Agricultural Research with the inception of the Technology Mission on Oilseed Crops during mid-eighties. The field demonstrations conducted under the close supervision of scientists of the National Agriculture Research System are called front-line demonstrations because the technologies are demonstrated for the first time by the scientists themselves before being fed into the main extension system of the State Department of Agriculture. The main objective of Front-Line Demonstrations is to demonstrate newly released crop production and protection technologies and its management practices in the farmers' field under different agro-climatic regions and farming situations.

### Correspondence

**Rajiv Verma**

Department of Transfer of  
technology, MGCGVV,  
Chitrakoot, Satna, Madhya  
Pradesh, India

While demonstrating the technologies in the farmers' field, the scientist are required to study the factors contributing higher crop production, field constrains of production and thereby generate production data and feedback information. Front-Line Demonstrations are conducted in a block of two or four hectares land in order to have better impact of the demonstrated technologies on the farmers and field level extension functionaries.

The KVK of Rajnandgaon district (C.G.) was entrusted with the responsibility of conducting FLDs in Rajnandgaon district (C.G.). 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. Keeping the above point in mind, it is necessary.

### Methodology and Methods

The study was carried out in Rajnandgaon district of

Chhattisgarh. The district has 9 developmental blocks, out of which Khairagarh block was selected purposively, after that from this block 4 villages were selected for the study, namely Daihan, Salgapat, Uraidabri and Parasbod, because in this villages FLDs were conducted by the KVK Rajnandgaon. Out of which 20 farmers from each selected village, were selected on the basis of random sampling. Thus, the total sample consisted of 80 farmers for investigation. The data were collected through a well-structured and pre-tested interview schedule. The researcher personally met the respondents and explained to them about the purpose of this study. The data were collected and recorded in the interview schedule. Data collected were qualitative as well as quantitative. The quantitative data were interpreted in terms of percentage and qualitative data were tabulated on the basis of categorization methods.

### Results and Discussion

#### The constraints in adoption of recommended technology and suggestion

**Table 1:** Constraints perceived by soybean growers in adoption of recommended technologies (N = 80)

S. No	Constraints	Adoption		
		Frequency	Percentage	Rank
1	Lack of proper training facilities	72	90.00	II
2	Lack of knowledge about plant protection measures.	66	82.50	IV
3	Lack of extension services timely	75	93.75	I
4	Lack of finance to purchase useful agricultural inputs	61	76.25	VI
5	High cost of agriculture inputs	63	78.75	V
6	Lack of appropriate and regular market.	38	47.50	XVI
7	Less availability of agricultural literature.	39	48.75	XV
8	Non-availability of seeds, fertilizers and chemicals at the proper time.	55	68.75	IX
9	Lack of demonstration on farmer's field.	36	45.00	XVIII
10	Lack of knowledge about production technology	42	52.50	XIV
11	Lack of knowledge regarding recommended varieties	37	46.25	XVII
12	Higher rate of interest on loan.	49	61.25	X
13	Lack of multimedia information	33	41.25	XIX
14	Non-availability of technological information.	47	58.75	XI
15	Lack of money to purchase agricultural inputs.	44	55.00	XIII
16	Insufficient supply of agriculture inputs	46	57.50	XII
17	Lack of regular contact of RAEOs in villages.	57	71.25	VIII
18	Higher charges of laborers.	60	75.00	VII
19	Lack of laborers	68	85.00	III

The data regarding constraints in adoption of recommended technology by soybean growers it was found that large majority of the soybean growers faced the constraints i.e. Lack of extension services timely (93.75%), Lack of proper training facilities(90.00%), Lack of laborers (85.00%), Lack of knowledge about plant protection measures (82.50%), High cost of agriculture inputs (78.75%), Lack of finance to purchase useful agricultural inputs (76.25%), Higher charges of laborers (75.00%), Lack of regular contact of RAEOs in villages (71.25%), Non-availability of seeds, fertilizers and chemicals at the proper time (68.75%), Higher rate of interest on loan (61.25%), Non-availability of technological

information (58.75%), Insufficient supply of agriculture inputs (57.50%), Lack of money to purchase agricultural inputs (55.00%), Lack of knowledge about production technology (52.50%), Less availability of agricultural literature (48.75%), Lack of appropriate and regular market (47.50%), Lack of knowledge regarding recommended varieties (46.25), Lack of demonstration on farmer's field (45.00%) and Lack of multimedia information

The above findings indicating that the majority of soybean growers faced problem in adoption of recommended technology due to lack of proper extension services and knowledge.

**Table 2:** The strategy for enhancement of adoption of recommended practices, suggested by the soybean growers

S. No	Suggestions	Frequency	Percentage	Rank
1	Periodic meeting with RAEO's and subject matter specialist should be made sure	74	92.50	II
2	Technical knowledge about new technology should provide to farmers timely	76	95.00	I
3	Loaning process should be easier	68	85.00	IV
4	Price should be decrease of agricultural inputs	64	80.00	V
5	Production of Multimedia information should be increase and reach to the last user of technology	49	61.25	VI
6	Government should provide proper market	45	56.25	VII
7	Training programme should be organized by the KVK	70	87.50	III

The respondents were asked to overcome the hindrances and for improvement in adoption and utilization of new technology for productivity of soybean. They replied in following manner that the highest number of respondents (76) Government should provide proper market (95.00%), Production of Multimedia information should be increase and reach to the last user of technology (92.50%), soybean should be decrease of agricultural inputs (57.50), Loaning process should be easier (85.00%), Training programme should be organized by the KVK (80.00%), Periodic meeting with RAEO's and subject matter specialist should be made sure (61.25%) and Technical knowledge about new technology should provide to farmers timely (56.25).

### Conclusion

KVK and other agricultural institutions always try to overcome technological gap at farmer level, because It is noticed by reviewing the research reports and findings of research journals that the package of practices as adopted by the farmers are somewhat different from what is recommended by the scientists for optimum production. There had been always a gap between recommended technologies and their adoption by the ultimate users of the technology. The study has shown that the FLD programme was found useful in enhancing the knowledge and adoption level of farmers and also shown that the farmers are facing lots of problems in their technological awareness due to lack of capacity building programme and they provided valuable suggestions which must be implemented by government organization or institute.

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