

**RESEARCH ARTICLE :**

Awareness about FLD and constraints faced by farmers of demonstrated groundnut production technology

■ M.V. POKAR, R.M. JAVIA* AND B.C. BOCHALYA**ARTICLE CHRONICLE :****Received :**

20.03.2015;

Revised :

28.03.2015;

Accepted :

13.04.2015

SUMMARY : ICAR has started FLD programme through KVK, to accelerate the production of crop. Latest recommended package of practices are demonstrated on farmers field under direct supervision of extension educationist / scientist. The present study was conducted in 4 villages of Deesa taluka where FLDs on groundnut crop were conducted by KVK. Groundnut is one of the most important crops among the different oilseed crops grown in Gujarat. Cent per cent beneficiary farmers were having medium to high level of awareness about the front line demonstration. On the other side 67.14 per cent of non-beneficiary farmers had medium to high level of awareness about front line demonstration. There was significant difference between beneficiary and non-beneficiary farmers with regard to their awareness about front line demonstration. The main constraints perceived by the beneficiary farmers were; non remunerative price for groundnut, high cost of inputs viz., seeds, fertilizers and chemicals, timely unavailability of inputs, poor marketing facility and can not stored farm production for long period to fetch high price.

KEY WORDS:

Groundnut production Technology, Front line demonstration, Awareness, constraints

How to cite this article : Pokar, M.V., Javia, R.M. and Bochalya, B.C. (2015). Awareness about FLD and constraints faced by farmers of demonstrated groundnut production technology. *Agric. Update*, **10**(2): 149-153.

BACKGROUND AND OBJECTIVES

The Indian Council of Agricultural Research (ICAR) introduced the concept of “first line demonstration” under the “oilseed technology mission” during 1990-91. Later on this demonstration was termed as “front line demonstration” because the technologies were demonstrated first time on farmer’s field by the scientists themselves before taking it to the main extension system of the state department of the agriculture. The front line demonstration (FLD) is to demonstrate

recommended crop production technologies and its’ management practices by the scientist on farmers field under real farming situation.

The latest recommended packages of practices of groundnut crop were demonstrated on the farmers’ fields. Krushi Vigyan Kendra has initiated the programme of multiplication of seeds of high yielding varieties of groundnut under irrigated condition. The objective was to popularize high yielding varieties by supplying pure seeds to the farmers on regular basis and thereby

Author for correspondence :**R.M. JAVIA**

Krishi Vigyan Kendra
(J.A.U.), Nana-Kandhasar,
SURENDRANAGAR
(GUJARAT) INDIA
Email: rmjavia@gmail.com

See end of the article for authors’ affiliations

increase the area and productivity of groundnut crop in Banaskantha district. To ascertain the constraints encountered by groundnut growers of this area, a multidisciplinary team of scientists of Krushi Vigyan Kendra carried out a benchmark survey, before conducting the demonstrations.

Groundnut is well known as the king of edible oilseeds and major source of edible oil. It is a major foreign exchange earning oilseed crop. But, India instead of being self sufficient has turned out to be a large importer of edible oil in last decade. It is due to more demand of edible oil and less production of groundnut in the country. Groundnut is mainly grown in Saurashtra region of Gujarat state and is an important and newly introduced crop in Banaskantha district among the oilseed crops. It has commendable area in the district and is largely grown under irrigated condition. It plays a vital role in improving the socio-economic condition of the farming community in the operational area of the Banaskantha district. It is largely used for oil and cake purpose which is marketed through out the country.

Considering this, the study was organized and conducted by Krushi Vigyan Kendra scientists with following objectives :

- To know the awareness of beneficiary and non-beneficiary farmers about the front line demonstration.
- To find out the constraints faced by beneficiary farmers in adoption of improved demonstrated groundnut production technology.

RESOURCES AND METHODS

The present study was undertaken in four villages in Deesa taluka of Banaskantha district where front line demonstrations on *Kharif* groundnut crop and was conducted by Krushi Vigyan Kendra. All these villages were selected purposively. A total of 70 beneficiary farmers were randomly selected from these four villages. In order to make comparison, 70 non-beneficiary farmers were also selected from the same villages randomly.

Since the present study is a part of an evaluation study, it was felt necessary to select two groups *viz.*, beneficiary and non-beneficiary. The post-test only, equivalent group design suggested by Best (1978) was employed to compare the two groups. This design is one of the most effective in minimizing the threats to experimental variety.

Awareness about the front line demonstration :

The term awareness has been operationalized as a body of superficial information of an object or subject possessed by the respondents selected under study.

A battery of the questions concerning importance and objectives of front line demonstration along with general information about implementing agencies, target groups and crops covered was prepared in consultation with experts and by referring literature. The questions framed were objective type. The respondents were asked to reply each question. A score of 'One' and 'Zero' was assigned for correct and incorrect answer, respectively. The score on each question was then summed up and the total score obtained by each respondent was calculated. The respondents were classified into three categories on the basis of Mean and S.D. as below:

Sr. No.	Level of awareness	Limit
1.	Low	< Mean - S.D.
2.	Medium	Mean \pm S.D.
3.	High	> Mean + S.D.

Constraints analysis :

The constraints were operationally defined as the difficulties experienced by the farmers in adoption of improved demonstrated groundnut production technology.

To know the constraints in adoption of improved demonstrated groundnut production technology, an open ended schedule was prepared for the information about the constraints faced by them. Each respondent was asked to mention his constraints in adoption of improved demonstrated groundnut production technology. Based on the responses from the farmers, frequency and percentage were worked out against each constraint.

Statistical frame work for analysis of the data :

The following statistical tools were used for analysis and interpretation of the data:

Percentage:

The simple comparison was made on the basis of percentage.

Mean (\bar{X}) :

This was obtained by total score divided by the number of respondents :

$$\bar{X} = \frac{\sum Xi}{n}$$

where,

\bar{X} = Mean

ΣXi = Total score

N = Number of observation

Standard deviation (S.D.) :

This was obtained from the square root of the average of the squared deviation from mean using following formula :

$$S.D. = \sqrt{\frac{\Sigma(Xi - \bar{X})^2}{n - 1}}$$

where,

\bar{X} = General mean

Xi = Observed values

N = Number of observations

S.D. = Standard deviation

Z – test :

In order to test the significance difference in average for different variables of both categories of the respondents under study, Z – test was used (Rao, 1983). The formula used for computing Z – value for equal size of group is as follows:

$$Z = \frac{\bar{X} - \bar{Y}}{\sqrt{\frac{S^2_1 + S^2_2}{n}}}$$

where,

Z = Calculated value

\bar{X} = Average of the group of beneficiaries

\bar{Y} = Average of the group of non-beneficiaries

S^2_1 = Variance of beneficiaries

S^2_2 = Variance of non-beneficiaries

n = Size of the sample for beneficiaries and non-beneficiaries.

OBSERVATIONS AND ANALYSIS

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Awareness of beneficiary and non-beneficiary farmers about the front line demonstration :

For achieving success of front line demonstration, the farmers must be aware of its importance and objectives. The beneficiary and non-beneficiary farmers according to their awareness were grouped into three categories (Table 1).

The data depicted in Table 1 show that 64.29 per cent of beneficiary farmers were having medium awareness about the front line demonstration. While 35.71 per cent of beneficiary farmers were having high awareness about it. It is fortunate to note that

Table 1 : Distribution of the respondents according to their awareness about FLD

Sr. No.	Category	Beneficiary farmers		Non-beneficiary farmers		'Z' value
		No.	Per cent	No.	Per cent	
1.	Low (Upto 5 score)	00	00.00	23	32.86	10.165**
2.	Medium (6 to 12 score)	45	64.29	43	61.43	
3.	High (Above 12 score)	25	35.71	04	05.71	
	Total	70	100.00	70	100.00	

Mean = 9.18

S.D. = 3.79

** indicate significance of value at P=0.01

Table 2 : Constraints faced by the beneficiary farmers in adoption of improved demonstrated groundnut production technology

Sr. No.	Constraints	Beneficiary farmers (n=70)	
		No.	Per cent
1.	Non-remunerative price for groundnut	61	87.14
2.	High cost of inputs, viz., seeds, fertilizers and chemicals	58	82.86
3.	Timely unavailability of inputs	55	78.57
4.	Poor marketing facility	46	65.71
5.	Can not stored farm production for long period to fetch high price	37	52.86
6.	Unavailability of sufficient labour in time	32	45.71
7.	Risk in adoption of new technology	27	38.57
8.	More problem of disease and insect	22	31.43
9.	Lack of finance to purchase inputs	21	30.00
10.	High charge and irregular supply of electricity	19	27.14

none of the beneficiary farmer fell under low awareness category.

On the other side, 61.43 per cent of non-beneficiary farmers had medium awareness, followed by 32.86 per cent having low awareness. Only 5.71 per cent of them were found having high awareness about front line demonstration.

The calculated 'Z' value (10.165**) was found to be significant indicating that there was significant difference between beneficiary and non-beneficiary farmers with regard to their awareness about front line demonstration.

It can be concluded from the above distribution that beneficiary farmers had higher level of awareness about front line demonstration as compared to non-beneficiary farmers.

The reasons for better awareness of beneficiary farmers about the front line demonstration may be due to their better involvement and good liaison between KVK scientists and training of farmers before and during the demonstration. Further, the low awareness of non-beneficiary farmers might be due to their non-exposure to KVK activities especially about front line demonstration.

The similar findings have been reported by Lakhera (2000) and Prajapati (2006).

Constraints faced by beneficiary farmers in adoption of improved demonstrated groundnut production technology under FLD:

Constraints in adoption of new technology never ends. However, they can be minimized. Constraints in this study were operationalized as the items of difficulties faced by the beneficiary farmers in adoption of improved demonstrated groundnut production technology. The beneficiary farmers were requested to express the constraints faced by them in adoption of improved demonstrated groundnut production technology. The percentage for each constraint was worked out. The result regarding the same are summarized in Table 2.

It is evident from Table 2 that, almost all 10 enlisted constraints had been faced by the beneficiary farmers in adoption of improved demonstrated groundnut production technology. However, non-remunerative price for groundnut was the main constraint expressed by the 87.14 per cent beneficiary farmers. The other constraints reported by more than half of the farmers were, high cost of inputs, viz., seeds, fertilizers and

chemicals (82.86 %), timely unavailability of inputs (78.57 %), poor marketing facility (65.71 %) and can not stored farm production for long period to fetch high price (52.86 %).

The least important constraints as mentioned by less number of beneficiary farmers were, unavailability of sufficient labour in time (45.71 %), risk in adoption of new technology (38.57 %), more problem of disease and insect (31.43 %), lack of finance to purchase inputs (30.00 %) and high charge and irregular supply of electricity (27.14 %).

It can be concluded that major constraints faced by beneficiary farmers were, non-remunerative price for groundnut, high cost of inputs, viz., seeds, fertilizers and chemicals, timely unavailability of inputs, poor marketing facility and can not stored farm production for long period to fetch high price.

The present finding has been supported by Patel (1991), Lakhera (2000), Chhodavadia (2001), Singh *et al.* (2005) Kalarani *et al.* (2010) and Prajapati (2006).

Conclusion:

Majority of the beneficiary farmers (64.29%) were having medium awareness about the front line demonstration. Remaining 35.71 per cent of beneficiary farmers were having high awareness about FLD.

On the other side 61.43 per cent of non-beneficiary farmers had medium awareness, followed by 32.86 per cent having low awareness. Only 5.71 per cent of them were found having high awareness about front line demonstration. There was significant difference between beneficiary and non-beneficiary farmers with regard to their level of awareness about the front line demonstration.

The main constraints perceived by the beneficiary farmers were; non remunerative price for groundnut, high cost of inputs viz., seeds, fertilizers and chemicals, timely unavailability of inputs, poor marketing facility and can not stored farm production for long period to fetch high price.

Authors' affiliations :

M.V. POKAR AND B.C. BOCHALYA, Krishi Vigyan Kendra (J.A.U.), Nana-Kandhasar, SURENDRANAGAR (GUJARAT) INDIA

REFERENCES

Best, J.W. (1978). *Research in education*, Prentice-Hall of India Private Limited, New Delhi-110001.

Chhodavadia, H.C. (2001). Impact of front line demonstration on groundnut-pigeonpea relay cropping system in Saurashtra region of Gujarat state. M.Sc.(Ag.) Thesis, Gujarat Agricultural University, Junagadh, GUJARAT (INDIA).

Kalarani, M.K., Raja, D., Sivachandran, R. and Premavathi, R. (2010). Effective way of transfer of technology to boost the groundnut yield under rainfed condition through frontline demonstration in Salem, Tamil Nadu. *Agric. Update*, **5** (1&2): 32-35.

Lakhera, J.P. (2000). Impact of front line demonstration on adoption of improved mustard production technology. Ph.D. Thesis, Rajasthan Agricultural University, Bikaner, RAJASTHAN (INDIA).

Patel, A.R. (1991). Evaluation of an institutional training

programmes conducted by Krushi Vigyan Kendra, Deesa in Banaskantha district of Gujarat state. M.Sc. (Ag.) Thesis, Gujarat Agricultural University, Sardarkrushinagar, GUJARAT (INDIA).

Prajapati, R.S. (2006). Impact of front line demonstrations on knowledge and adoption of improved pulse production technology by the farmers of North Gujarat. Ph.D. (Ag.) Thesis, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar, GUJARAT (INDIA).

Rao, N.G. (1983). *Statistics for agricultural sciences*. Oxford and IBH Publishing Co., Bombay.

Singh, N.N., Prasad, A. and Ram, D. (2005). Front line demonstration on rice in Manipur. *Agric. Ext. Rev.*, May-June: 6-7.



 ★★★★★ of Excellence ★★★★★