

**IMPACT OF FRONT LINE DEMONSTRATION ON GROUNDNUT CONDUCTED BY
KRUSHI VIGYAN KENDRA, DEESA**

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ABSTRACT

Groundnut is the important oil seed crop of Gujarat state. It is mainly grown in Saurashtra region. Krishi Vigyan Kendra was started in Banaskantha district Since 22 February, 1976. FLD on different crops sown in the district is the mandatory activity of KVK. FLD on groundnut crop were conducted by KVK, Deesa since 1999-2000. Thus, It is necessary to study the Impact of FLD on groundnut conducted by KVK, Deesa. The present study was conducted in Banaskantha district. Two Talukas viz. Deesa and Vadgam were selected purposively in which FLD Groundnut has been given by KVK, Deesa. The list of villages was prepared in which FLD-groundnut was conducted in last ten years and five villages were randomly selected from the each Taluka. Thus total 120 farmers/ respondents were selected for the present study. The farmers selected for the study were remain same before and after FLD. The data were collected by personal interview. The collected data were tabulated and analysed on the basis of frequency and percentage. From this study it is concluded that About 20259 ha of land have been covered under HYVs of groundnut replacing local varieties. Reduction in cost of cultivation by 10 per cent as a means of reduction in seed rate and Maintenance of optimum plant population. Farmers are getting more yields and profit from the per unit area because improved varieties fetch higher prices as compared to local varieties because of higher yield and bold size of grains. More than 25 farmers have started multiplication of seeds of their own field under the supervision and guidance of KVK scientist. This will increase the area under HYVs at a faster rate in coming years. This in turn will helps in changing socio- economic status of the farmers of this area.

Keywords: *impact, fld, groundnut, KVK*

INTRODUCTION

Groundnut is an important edible oilseed crop. Now a day in Gujarat, Groundnut crop is cultivated on the seed production basis. India occupy second rank in the world, in respect of area (69.52.Million ha.), production (56.17 Mt.) and productivity (808 Kg/ha). Gujarat state ranks first in the country with respect to area (17.58 Lakh.ha.), production (16.33 Lakh.ha) and productivity (929 Kg/ha) among all major Groundnut growing states in the country.It is mainly grown in Saurashtra region. (Patel *et al.*,2016)

Krishi Vigyan Kendra was started in Banaskantha district Since 22 February, 1976. The main aim of KVK is transfer of technology through. On and Off Campus training programme for farmers and extension functionaries, Front Line Demonstration, On Farm Testing and other extension activities. FLD on different crops sown in the district is the mandatory activity of KVK. FLD on groundnut crop were conducted by KVK, Deesa since 1999-2000. Thus, It is necessary to study the Impact of FLD on groundnut conducted by KVK, Deesa. The study was undertaken with following objectives.

OBJECTIVES

- (a) To know the adoption of demonstrated technology after FLD
- (b) To know the constraints faced by the farmers in conducting FLD next year.

METHODOLOGY

The present study was conducted in Banaskantha district. Two Talukas viz. Deesa and Vadgam were selected purposively in which FLD on Groundnut has been given by KVK, Deesa. The list of villages was prepared in which FLD-groundnut was conducted in last ten years and five villages were randomly selected from the each Taluka. The list of farmers to whom FLD groundnut was allotted was prepared and twelve farmers from each village were randomly selected. Thus total 120 farmers/ respondents were selected for the present study. The farmers selected for the study were remain same before and after FLD. The data were collected by personal interview. The collected data were tabulated and analysed on the basis of frequency and percentage.

RESULTS AND DISCUSSION

In order to find out the extent of adoption of improved agricultural practices of ground nut crop 16 improved practices were identified for study. The respondents were

asked to give their responses to these practices. In both the cases, before FLD and after FLD, the respondents were same for present study. The responses of farmers were recorded and presented in Table -1.

Table 1 : Extent of adoption of recommended Package of practices of groundnut crop before FLD and after FLD.

n=120

Sr. No.	Practices	Adoption Before FLD		Adoption After FLD	
		No.	Percent	No.	Percent
1	Type ground	53	44.17	92	76.66
2	Improve seed	55	45.83	92	76.66
3	Seed rate	41	34.17	82	68.33
4	Seed treatment (Dm-45 & Quinalphose)	15	12.50	108	90.00
5	Time of sowing	75	62.50	116	96.66
6	Sowing distance	48	40.00	84	70.00
7	FYM	22	18.33	39	32.50
8	Chemical fertilizers	48	40.00	87	72.50
9	Method of fertilizers application (Basal)	60	50.00	120	100.00
10	Method of Fertilizers application (Top dressing)	43	35.83	94	78.33
11	Use of sulphur (micronutrient)	34	28.33	90	75.00
12	Weeding (use of weedicide)	77	64.16	120	100.00
13	Interculturing	72	60.00	120	100.00
14	Method of Irrigation (sprinkler)	46	38.33	112	93.33
15	Use of insecticide as per recommendation	41	34.16	110	91.66
16	Use of pesticide as per recommendation	26	21.66	78	65.00
17	Yield(q./ha)	18.5	-	29.25	58.32% Yield Increase

The data in table 1 indicated that method of fertilizer application weeding and inter culturing were adoption cent percent by the respondents after FLD. where major of the respondents adopter Time of sowing (96.66 per cent) method of irrigation (93.33 percent) use of insecticide as

per recommendation (91.66 percent) seed treatment (90.00 percent) method of fertilizer application (78.33 percent) Improve seed (76.66 percent)use of sulphur (73.00 percent) chemical fertilizer (72.50 percent) and FLD ground nut program me sowing distance (70.00 percent) after.

Table 2 : Profitability of Groundnut crop before and after FLD

Sr. No	Items	FLD	
		Before	After
1	Cost of cultivation (₹/ ha)	40000	45000
2	Yield of groundnut (q./ha)	18.50	29.25
3	Gross Income (₹/ha)	78070	123435
4	Net profit (₹/ha)	38070	78435
5	BCR	1.95	2.74
	Market price ₹/qtl.		4220

As per market price the income was calculate for before and after FLD and profitability for hectare was calculated the data in table:6 revealed that before FLD the yield of groundnut was 18.50 qt./ha while after FLD two yield was 29.25 qt./ha the prevailing market price was 4220

per quintal and on that base profitability was calculated which showed that the net profit from groundnut crop before FLD was ₹ 38070=00 per hectare while net profit from groundnut crop after FLD was ₹ 78435=00 per hectare. The BCR for before FLD was 1.95 while after FLD was 2.74

Table 3 : Constraint faced by the farmers in Conducting FLD Groundnut

n= 120

Sr. No.	Constraint	Number	Percent	Rank
1	Seed and fertilizers are not available timely for early sowing	18	15.00	VII
2	Seed cum fertilizer drill is not timely available	90	75.00	II
3	No seed dressing drum for seed treatment	96	80.00	I
4	Seed cum fertilizer drill for 60 cm distance between two rows are not available .	72	60.00	IV
5	One acre land at one location for FLD is not available.	48	40.00	V
6	Lock of irrigation facility	42	35.00	VI
7	Weed population increase in standing crop of groundnut	84	70.00	III

The data in table 3 indicated that majority (80.00 percent) of the respondents faced the constraint “No seed dressing drum for seed treatment” followed by 75.00 percent of the respondent faced the constraints seed fertilizer drill is not timely available. The third constraint was weed population increase in standing crop of groundnut it ranks third.

Table 4 : Yield of groundnut crop before FLD and after FLD

n=120

Average yield of groundnut crop Kg/ha		‘t ‘ Value	Percentage increase
Before FLD	After FLD		
18.50	29.25	7.617**	58.32 %

t = (calculated t) 2.612

t = (table t at 0.05 % level of significance)

The data in table 7 revealed that the yield of groundnut crop per hectare was increased 58.32 percent after FLD the paired t test also indicates the highly significance difference in yield before and after FLD.

changing socio- economic status of the farmers of this area.

- ◆ Thus, by replacing local varieties, farmers of the targeted area as getting higher production and income.

CONCLUSION

- ◆ Successfully introduced HYVs of groundnut such as GG-20 in this area.
- ◆ About 20259 ha of land have been covered under HYVs of groundnut replacing local varieties.
- ◆ Av. Yield of groundnut per unit area has been increased.
- ◆ Reduction in cost of cultivation by 10 per cent as a means of reduction in seed rate and Maintenance of optimum plant population.
- ◆ Farmers are getting more yields and profit from the per unit area because improved varieties fetch higher prices as compared to local varieties because of higher yield and bold size of grains.
- ◆ More than 25 farmers have started multiplication of seeds of their own field under the supervision and guidance of KVK scientist. This will increase the area under HYVs at a faster rate in coming years. This in turn will helps in

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