

## Impact of Front Line Demonstrations on Maize

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### ABSTRACT

Indian Council of Agricultural Research, New Delhi has started front line demonstration through krishi Vigyan Kendras to accelerate the production of crops. Technologies generated by scientists are of no use unless adopted by farmers. Latest recommended package of practices are demonstrated on farmers' field through FLDs. The study was under taken to know the extent of adoption of maize production technologies before and after FLDs given by KVK, Khedbrahma. Total 10 villages in which FLDs on maize conducted by KVK, Khedbrahma were selected. From each village six demonstrating farmers were selected randomly making sample of sixty respondents. Majority (91.66 percent) of the respondents had adopted sowing distance, thinning & interculturing and hand weeding. The yield of Maize crop per hectare was increased 32.77 percent after FLD. Before FLD BCR was 1.99 increased to 2.49 after FLD.

**Keywords :** FLD, Maize

### INTRODUCTION

Krishi Vigyan Kendra has been functioning in the Sabarkantha district since February 2005. The KVK is sanctioned by the Indian Council of Agricultural Research (ICAR) and constituent of Sardarkrushinagar Dantiwada Agricultural University situated at Khedbrahma, Dist. Sabarkantha. The main aim of Krishi Vigyan Kendra is transfer of technology through on and off campus training programmes for farmers and extension functionaries, front line demonstrations, on farm trials and other extension activities. A Front line demonstration on different crops grown in the district is the mandatory activity of Krishi Vigyan Kendra. Krishi Vigyan Kendra has given front line demonstrations on Maize crop (var. G. M.-2) to tribal farmers sanctioned by ZPD, Jodhpur. Thus, impact of front line demonstrations on Maize given by Krishi Vigyan Kendra, Khedbrahma was felt necessary.

### OBJECTIVES

- (i) To evaluate the FLD Maize in terms of adoption of recommended Maize production technology
- (ii) To estimate the yield of Maize on farmers field before and after FLD
- (iii) To estimate the profitability of Maize crop before and after FLD

### METHODOLOGY

The present study was conducted in Sabarkantha district. The villages namely Changod, Kajavas, Ratanpur, Nanabaval, Shilvad, Panthal, Dantral, Ambamahuda, Shitol and bandiyanu talav were selected purposively in which Maize FLDs had been given by KVK, Sabarkantha. List of farmers to whom FLD Maize (var. G. M. 2) had been allotted were prepared and six farmers from each village were randomly selected. Thus, total sixty farmers / respondents were selected for present study.

The data were collected by personal interview. The respondents were same for before and after FLD data collection. The interview schedule was developed through discussion with experts, scientist and extension officers working in the district. The data were analyzed with appropriate statistical procedures.

### RESULTS AND DISCUSSION

In order to find out the extent of adoption of improved agricultural practices of Maize crop, 13 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 Maize crop before FLD and after FLD**  
n=60

Sr. No.	Package of practice	Adoption of recommended practices (Before FLD)		Adoption of recommended practices (After FLD)	
		No.	Percent	No.	Percent
1	Preparation of land	30	50.00	51	85.00
2	Selection of Maize varieties	20	33.33	48	80.00
3	Sowing time	10	16.66	50	83.33
4	Seed treatment	07	11.66	40	66.66
5	Seed rate	23	38.33	42	70.00
6	Sowing distance	40	66.66	55	91.66
7	Basal fertilizer application as per recommendation	05	08.33	35	58.33
8	Irrigation at critical stages	20	33.33	50	83.33
9	Thinning	25	41.66	55	91.66
10	Top dressing of fertilizers	10	16.66	41	68.33
11	Inter culturing & hand weeding	34	56.66	55	91.66
12	Application of weedicides	00	0.00	10	16.66
13	Plant protection measures	22	36.66	51	85.00

The data in Table 1 indicated that majority (91.66 percent) of the respondents had adopted sowing distance, thinning and interculturing & hand weeding. Preparation of land and plant protection measures were adopted by 85.00 per cent respondents. While sowing time and irrigation at critical stages (83.33 per cent), selection of variety (80.00 per cent), seed rate (70.00 per cent), top dressing of fertilizer (68.33 per cent), seed treatment (66.66 per cent) and basal application of fertilizer (58.33 per cent) adopted by respondents. Very less number of respondents (16.66 percent) adopted weedicide application.

**Yield of maize**

The yield of Maize crop before FLD and after FLD were compared. The data are presented in Table 2.

**Table 2: Yield of Maize crop before FLD and after FLD**  
n=60

Average yield of Maize crop Kg/ha		't' value	Percentage increase
Before FLD	After FLD		
24.32	32.29	2.278*	32.77 %

t=2.278 (Calculated t)

t=1.96 (Table t at 0.05 percent level of significance)

\*Significant

The data in Table 2 revealed that the yield of Maize crop per hectare was increased 32.77 percent after FLD. The t test also indicates the significant difference in yield before and after FLD.

**Profitability of FLD maize**

The cost of inputs was calculated for before and after FLD Maize crop. The yield data of Maize crop was also recorded before and after conducting FLDs. The data are presented in Table 3.

**Table 3: Profitability of Maize crop before and after FLD**

n=60

Sr. No.	Items	Before FLD	After FLD
1	Cost of cultivation (₹/ha)	16462	17442
2	Yield of Wheat (qt/ha)	24.32	32.29
3	Gross income (₹/ha)	32759	43495
4	Net profit (₹/ha)	16297	26053
5	BCR	1.99	2.49

Selling price ₹ 1347=00 per quintal

As per market price the income was calculated for before and after FLD and profitability per hectare was calculated.

The data in Table 3 revealed that before FLD the yield of Maize was 24.32 qt/ha while after FLD the yield was 32.29 qt/ha. The prevailing market price was ₹ 1347=00 per quintal and on that base profitability was calculated which showed that net profit from Maize crop before FLD was ₹ 16297.00 / ha while the net profit from Wheat crop after FLD was ₹ 26053.00/ha. The BCR for before FLD was 1.99while after FLD was 2.49.

## CONCLUSION

From the set of technologies of Maize crop, before FLD the adoption was very less but after conducting the FLD programme on farmers field most of the farmers become aware about recommended production technologies of Maize crop. Majority of the farmers have adopted most of the production technologies of Maize after FLD as compare to before FLD. The yield of Maize crop per hectare was increased 32.77 percent after FLD. The t test also indicates the significant difference in yield before FLD and after FLD. At the prevailing market price (₹ 1347=00 per quintal) the net profit from maize crop before FLD was ₹ 16297.00 / ha while the net profit from maize crop after FLD was ₹ 26053.00/ha. The BCR for before FLD was 1.99while after FLD was 2.49. It shows impact of FLD on adoption.

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