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## Constraints faced by mustard growers in adoption of improved production technologies

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### Abstract

Demonstration is a powerful tool for motivating the farmers to adopt new practices by comparing the superior results of recommended practices with the usual method. The main objective of front-line demonstration is to demonstrate newly released crop production and protection technologies and management practices at the farmers' fields under different agro-climatic regions and farming situations. Mustard (*Brassica juncea* L.) is an important rabi season oilseed crop. The study was conducted in Banaskantha district of Gujarat state. The Banaskantha district comprises of 14 talukas, out of which, three talukas viz., Dantiwada, Tharad and Dhanera were selected purposively for present investigation because greater number of FLDs on mustard crop were conducted in these three talukas by KVK, Deesa and KVK, Tharad of the SDAU. The ex-post facto research design and multistage sampling technique were followed for present study. Three villages were selected purposively from each taluka where frontline demonstrations conducted by KVK, Deesa and KVK, Tharad. From each selected village, ten farmers were selected randomly, 90 beneficiary farmers were selected and equal numbers of non-beneficiary farmers were also selected from same villages. Thus, total 180 mustard growers were selected for the study. The study revealed that majority constraints faced by the mustard growers were; high cost of fertilizers, low price produce at time of harvesting and non-availability of finance at time. The most important suggestions expressed by mustard growers were; availability of improved seed from co-operative society and government agency, provision of chemical fertilizer in subsidized rate and fair price should be given to the product.

**Keywords:** Constraints, suggestions & improved mustard production technology

### Introduction

Agriculture has always occupied a pride place in Indian economy. The great significance of agriculture in the country's economy is well understood by the fact that it is mainstay of the people. Demonstration is a powerful tool for motivating the farmers to adopt new practices by comparing the superior results of recommended practices with the usual method. Frontline demonstration is the long-term educational activity conducted by agricultural scientists in a systematic manner on farmer's field to show the value/output of newly released crop production and protection technologies and its management practices in the farmer's field under the micro-farming situation. Therefore, FLD in oilseed is an effective extension intervention to demonstrate the production potential of improved technologies on farmer's field for harnessing the productivity potential of oilseed crops in the country. Keeping this in view present FLD were organized in participatory mode with the objective to enhance production potential of mustard crop in the region of state. Oilseed crops occupy a significant place in the Indian economy, next to food grains. Rapeseed-mustard is the third important oilseed crop grown in the world after soybean. India is an important rapeseed-mustard growing country in the world. In India, rapeseed-mustard grown in 7.92 m ha with production of 9.34 M.T. with average productivity of 1499 kg/ha (Anonymous, 2019 and 2020) <sup>[1]</sup>. Production of a new technology is generally not the major problem now-a-days in our country. The agricultural scientists are capable of producing appropriate technology. The main problem as it exists today is that of diffusion and adoption of new farm technologies among the farmers. Frontline demonstrations of mustard crop organized by Krishi Vigyan Kendra of Deesa and Krishi Vigyan Kendra of Tharad, Sardarkrushinagar Agricultural University, during last five years were considered for the study to measure the impact. Considering all these aspects, the present study entitled, "Impact of frontline demonstrations on mustard growers in Banaskantha district" was planned with the following specific objectives.

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## Objectives

- 1) To find out constraints faced by mustard growers in adoption of improved production technologies
- 2) To seek the suggestions from mustard growers to overcome the constraints faced by them in adoption of improved production technologies

## Methodology

The present study was purposively undertaken in the three talukas viz., Dantiwada, Tharad and Dhanera of Banaskantha district of Gujarat state because greater number of FLDs on mustard crop were conducted in these three talukas by KVK, Deesa and KVK, Tharad of the Sardarkrushinagar Dantiwada Agricultural University during last five years. Three villages were selected purposively from each taluka where frontline demonstrations conducted by KVK, Deesa and KVK, Tharad. From each selected village, 10 farmers were selected

randomly by Using simple random sampling method, 90 beneficiary farmers were selected and equal numbers of non-beneficiary farmers were also selected randomly from same villages. Thus, total 180 mustard growers were selected for the study. The present study was confined to ex-post-facto research design. An interview schedule was developed according to objectives of study and the data were collected by arranging personal interview.

## Results and Discussion

### Constraints faced by mustard growers in adoption of mustard production technologies

The constraints regarding mustard production technologies as opined by the mustard growers were collected and the percentage was worked out for each constraint. The results are presented in Table 1.

**Table 1:** Constraints faced by mustard growers in adoption of mustard production technologies

Sr. No.	Constraints	FLD farmers (n = 180)		
		Frequency	Percent	Rank
1	High cost of agriculture input	59	65.55	V
2	Insufficient irrigation water	55	61.11	VI
3	High price of the seed	62	68.88	IV
4	High cost of fertilizers	76	84.44	I
5	Attack of pest and disease	41	45.55	VII
6	Non availability of finance at time	66	73.33	III
7	Low price produce at time of harvesting	69	76.66	II

The major constraints faced by mustard growers were high cost of fertilizers (84.44%) which was first followed by low price produce at time of harvesting (76.66%), non-availability of finance at time (73.33%), high price of the seed (68.88%), high cost of agriculture input (65.55%), insufficient irrigation water (61.11%), attack of pest and disease (45.55 %), respectively.

These findings are partly in line with the findings of Gurjar (2017) <sup>[4]</sup>, Padiyar (2017) <sup>[5]</sup>, Tunvar *et al.* (2017) <sup>[7]</sup> and Chaudhary (2020) <sup>[2]</sup>.

### Suggestions from the mustard growers to overcome the constraints in adoption of mustard production technologies

Mustard crop growers were requested to give their suggestions to overcome the constraints faced by them. The frequency was calculated for each suggestion and was converted into percentage. The rank was given on the basis of percentage.

The suggestion offered by higher percent of mustard growers was considered as an important; suggestion offered by less percent mustard growers was considered as less important. The suggestions along with their percentage and ranks are presented in Table 2.

**Table 2:** Suggestions from the mustard growers to overcome the constraints in adoption of mustard production technologies

Sr. No.	Suggestions	FLD farmers (n = 180)		
		Frequency	Percent	Rank
1	Fair price should be given to the product	62	68.88	III
2	Availability of improved seed from co-operative society and government agency	80	88.88	I
3	Crop loan should be provided at proper time	53	58.88	IV
4	Provision of chemical fertilizer in subsidized rate	68	75.55	II
5	Agriculture input given in low price	40	44.44	VI
6	Provide improved seeds with subsidized rate	46	51.11	V

The suggestions given by mustard growers were availability of improved seed from co-operative society and government agency (88.88%), provision of chemical fertilizer in subsidized rate (75.55%), fair price should be given to the product (68.88%), crop loan should be provided at proper time (58.89%), provide improved seeds with subsidized rate (51.11%), agriculture input given in low price (44.44%), respectively.

These findings are almost similar to findings of Choudhary and Yadav (2012) <sup>[3]</sup>, Sharma (2015) <sup>[6]</sup>, Padiyar (2017) <sup>[5]</sup> and Chaudhary (2020) <sup>[2]</sup>.

## Conclusion

The study revealed that majority constraints faced by the mustard growers in the adoption of mustard production technology were high cost of fertilizers which was first

followed by low price produce at time of harvesting, non-availability of finance at time, high price of the seed etc. While availability of improved seed from co-operative society and government agency, provision of chemical fertilizer in subsidized rate, fair price should be given to the product, were important suggestions to overcome/ minimize the constraints in adoption mustard production technology by the mustard growers. This constraints and suggestions expressed by the mustard growers should take into account by various policy makers of concerned departments to increase the adoption of recommended mustard production technology.

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