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Constraints Experienced by Farmers in Adoption of Recommended Groundnut Crop Production Technology

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ABSTRACT

India is a world leader in groundnut farming. A multistage, purposive and random sampling technique was used for the study and conducted in Saurashtra region of Gujarat state. Four districts were selected purposively where front-line demonstrations were conducted and from each district 2 talukas whereas 2 villages from each *talukas* were selected purposively by KVK. Ten farmers from each village were selected randomly, thus making a total of 160 respondents for this study. An *ex-post facto* research design was used and the data were collected by interview method and enquired about the constraints faced by them in adopting the recommended groundnut crop production technology. It was revealed that major constraints of the respondents faced were high price of improved seeds (92.50 %) followed by low production due to pest and disease infestation (88.75 %) , the non-availability of appropriate market price on farm produce (86.25%), shortage and high wages of labour (85.00 %) and lack of knowledge about critical stages (83.12 %) as reported by the respondents.

Key Words: Adoption, Constraints, Groundnut, Production, Technology.

INTRODUCTION

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 (*Arachis hypogaea* L.) is an of the most important food crops cultivated and consumed in most parts of the world. It is widely accepted as an excellent source of nutrition to both human and animals due to its high protein content. The groundnut accounts for 37.7 % in area, production is 51.95 lakh MT and productivity are 1421 kg/ha (Anonymous, 2018). The principal groundnut growing states in India are Gujarat, Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra, which accounts for more than 85 per cent of the production as well as area.

Priya *et al* (2021) reported that the most important problems as expressed by most of the respondents were less remunerative prices for the produce, high cost of cultivation, uncertainty in weather condition especially rainfall and high labour scarcity at crucial operations like sowing, weeding and harvesting. Patel *et al* (2018) reported that the major constraints faced by the groundnut growers in adoption of recommended kharif groundnut production technology were high cost of input (96.67%), high wages of labour (92.0%), high cost of seed (85.33%), lack of pure and good quality seed/certified seed (80.0%), non-availability of sufficient labour in time (72.00%) and lack of improved implements (70.0%).

In Gujarat, it is mainly cultivated in Saurashtra region. The study was undertaken in four districts purposively because the area under groundnut crop was drastically reduced and therefore to find out the reason for decreasing area under groundnut crop was the main objective.

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Table 1. Distribution of groundnut growers according to their constraints (n = 160).

Sr. No.	Constraint	No.	Percent	Rank
1.	High price of improved seed	148	92.50	I
2.	Low production due to pest and disease infestation	142	88.75	II
3.	Non-availability of appropriate market price on farm produce	138	86.25	III
4.	Shortage and high wages of labour	136	85.00	IV
5.	Lack of knowledge about critical stages	133	83.12	V
6.	Non-availability of finance at a time	129	80.62	VI
7.	Lack of irrigation water	122	76.25	VII
8.	High price of herbicide	118	73.75	VIII
9.	High price of fungicide/Pesticide	118	73.75	VIII
10.	High price of chemical fertilizer	114	71.25	IX

MATERIALS AND METHODS

The research was carried out in Saurashtra region of Gujarat state. Four districts were selected purposively where front-line demonstrations were conducted and from each district 2 talukas whereas 2 villages from each *talukas* were selected purposively by KVK. Ten farmers from each village were selected randomly, thus making a total of 160 respondents for this study.

An *ex-post facto* research design was used and the data were collected by interview method and enquired about the constraints faced by them in adopting the recommended groundnut crop production technology. The collected data were classified, tabulated and analysed by using statistical measures such as frequency, percentage, mean score, standard deviation and coefficient of correlation were used in the study.

RESULTS AND DISCUSSION

Constrains faced by the groundnut growers

The difficulties or problems faced by the groundnut growers in adoption of recommended groundnut production technology were considered as constraints. Constraints in adoption of improved practices never end. However, they can be minimized.

The data (Table1) indicated that the major constraints faced by farmers were: high price of improved seed was perceived by 92.50 % of groundnut growers and ranked at first position followed by low production due to pest and disease infestation (88.75 %), non-availability of appropriate market price on farm produce (86.25 %) and shortage and high wages of labour (85.00 %) which were ranked at second, third and fourth position, respectively. Moreover, the constraints lack of knowledge about critical stages (83.12 %), non-availability of finance at a time (80.62 %) lLack of irrigation water (76.25 %), high price of herbicide and pesticide/ fungicide (73.75 %) and high price of chemical fertilizer (71.25 %) were ranked at fifth, sixth, seventh, eighth, and ninth position, respectively. This finding were in agreement to those reported by Patoliya (2013), Raviya *et al* (2016) and Krishna *et al* (2021).

Table 2. Suggestions from the respondents to overcome constraints faced by them in adoption of recommended groundnut production technology. (n=160).

Sr. No	Suggestion	Frequency	Percentage	Rank
1	Inputs should be made available at subsidized rate.	145	90.62	I
2	Produce should be purchased by government at a reasonable price	135	84.37	II
3	Provide technical knowledge about insecticide, fungicide and pesticide	124	77.50	III
4	Farmer should be protected by crop insurance, if crops fail.	115	71.87	IV
5	Remunerative price should be made available to the groundnut growers for their products.	105	65.62	V
6	Village level workers should be frequently contacting the farmers to make them aware about the new farm technology.	98	61.25	VI
7	Demonstration of new farm technology should lay out on farmers field	91	56.87	VII
8	There must be regular electric supply at the time of critical irrigation.	81	50.62	VIII
9	Sufficient and timely credit facilities should be made available	78	48.75	IX
10	Training should be given to the farmers in relation to new farm technology	72	45.00	X
11	Irrigation facilities should be made available	61	38.12	XI
12	Improved and certified seed should be provided by government at local place	54	33.75	XII
13	Provide market facilities at village level	48	30.00	XIII

Suggestions from the respondents to overcome the constraints

To overcome the constraints, which hindering the groundnut growers in adoption of recommended groundnut production technology.

The most important suggestion offered by respondents to overcome constraints in adoption of recommended groundnut production technology were that inputs should be made available at subsidized rate (90.62 %), followed by produce should be purchased by government at a reasonable price (84.37 %), provide technical knowledge about insecticide, fungicide and pesticide (77.50 %), farmer should be protected by crop insurance, if crops fail, (71.87 %), remunerative price should be made available to the groundnut growers for their products (65.62 %). The suggestions expressed by respondents were that village level workers should frequently contact the farmers to make them aware about the new farm technology (61.25 %), followed

by demonstration of new farm technology should lay out on farmers' fields (56.87 %), there must be regular electric supply at the time of critical irrigation (50.62 %), sufficient and timely credit facilities should be made available (48.75 %), training should be given to the farmers in relation to new farm technology (45.0 %), irrigation facilities should be made available (38.12 %), improved and certified seed should be provided by government at local place (33.75 %) and provide market facilities at village level (30.00 %). This finding was similar with Chodavadiya *et al* (2013).

CONCLUSION

It can be concluded that the most important problems as expressed by most of the respondents were high price of improved seed, low production due to pest and disease infestation and non-availability of appropriate market price on farm produce. Whereas, most important suggestions expressed by groundnut growers were that inputs should be made available at subsidized rate, produce should be purchased by government at a reasonable price and provide technical knowledge about insecticides, fungicides and pesticides. These problems need to be solved by the research institutions and development departments on the priority for making groundnut cultivation a profitable business.

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