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RESEARCH NOTE

Technological Gap between Contact and Non-contact Farmers in Gram Production Technology.

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INTRODUCTION

Gram is an important pulse crop of India in general and Gujarat in particular. Gram is widely grown in all the districts of the state. The Bhal area of Gujarat state is one of the main gram seed producing districts in the state.

Unless the new technology developed by agricultural universities and research institutes is transferred to the cultivators' fields and converted into production, it is wasteful expenditure. At present, there is a big gap between what is achieved at research stations and agricultural universities and what a farmer gets in his field. This has been proved beyond doubt, through the National Demonstration Project in case of almost all major crops. The technological gap is a major problem in the effort of increasing agricultural production in the country.

It was, therefore, necessary to find out the technological gap in the adoption of the recommended practices for gram cultivation. The present study was undertaken in that direction.

METHODOLOGY

The present study was undertaken in Dhandhuka taluka of Ahmedabad district and Limbdi taluka of Surendranagar district of Bhal area of Gujarat state. These talukas were having the highest average area under gram cultivation during the last three years (1988-89 to 1990-91). So, Dhandhuka and Limbdi talukas were selected purposively. Nine villages were randomly selected from each of the selected talukas. From each of the villages, 5 contact and 5 non-contact gram grower farmers were selected randomly, making a sample of 90 contact and 90 non-contact farmers. The data were collected with the help of structured interview schedule.

Technological gap was operationalised as difference between technology adopted and specific technology recommended. The technological gap index for each of the selected practices were calculated by the formula developed by Dubey *et al.* (1981) as under :

$$T.G. = R - \frac{A}{R} \times 100$$

Where,

T.G. = Technological gap

R = Recommended package score

A = Adopted score of relative package

The average technological gap for each respondent was calculated as follows :

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$$A.T.G. = \frac{\sum_{i=1}^{P} GI_j}{P}$$

Where,

GI_j = Gap index of jth. respondent

P = Total number of major practices

P = Summation of gap index of each practices of j^{th} respondent

Afterwards, overall technological gap was calculated by using the formula given below :

$$\frac{\sum_{i=1}^{r} \sum_{i=1}^{P} GI_{jp}}{rP}$$

Where,

GI_{jp} = Gap index of j^{th} respondent for p^{th} practices

r = Total number of respondents

p = Total number of major practices

RESULTS AND DISCUSSION

Data presented in Table 1 revealed that the average technological gaps in different components varied from component to component. The extent of average technological gap in all components in case of contact farmers, ranged from 7.77 per cent to 82.22 per cent, while, in case of non-contact farmers, it ranged from 13.33 per cent to 85.55 per cent.

In respect of contact farmers, the

Table 1. Average technological gaps in adoption of different components of gram production technology in contact and non- contact farmers.

Sr.No.	Different components	Average technological gap			
		Contact farmers (n=90)		Non-contact farmers (n=90)	
1.	Recommended variety	82.22	I	85.55	I
2.	Seed rate	07.77	X	13.33	X
3.	Seed treatment	57.22	III	66.27	III
4.	Sowing time	10.00	IX	17.77	IX
5.	Spacing	15.55	VIII	20.00	VIII
6.	Farm yard manure	34.44	VII	42.22	VII
7.	Chemical fertilizers	41.11	VI	50.00	VI
8.	Hand weeding	51.11	IV	55.55	V
9.	Weed control by weedicide	72.21	II	72.59	II
10.	Plant protection measures	50.90	V	66.26	IV
	Overall gap	42.55		48. 73	
	Mean sum of square	134.32		1219.02	
	'z' value		3.6836**		

** Significant at 0.01 level of probability

maximum gap was observed in recommended variety followed by chemical weed control, seed treatment, hand weeding, plant protection measures, chemical ferti-lizers, farm yard manure, spacing, sowing time and seed rate which secured the rank from 1 to 10, respectively. It could be further inferred that there was a high technological gap (above 67 per cent) in recommended variety and chemical weed control. A medium technological gap (34.00 to 67.00 per cent) was observed in seed treatment, plant protection measures, hand weeding, chemical fertilizers and farm yard manure. A low technological gap (0 to 33.00 percent) was found in spacing, sowing time and seed rate. The overall technological gap against recommended gram technology was found to be 42.55 per cent in case of contact farmers.

In case of non-contact farmers, high technological gap (above 67.00 per cent) was observed in recommended variety, chemical weed control, seed treatment, and plant protection measures. The medium technological gap (34.00 to 67.00 per cent) was observed in hand weeding, chemical fertilizers and farm yard manure. While, low technological gap (0 to 33.00 per cent) was found in spacing, sowing time and seed rate. Overall gap against recommended gram technology was found to be 48.73 per cent in case of non-contact farmers.

From the above discussion, it could be inferred that overall gap in non-contact farmers was high as compared to contact farmers.

The 'z' test was applied to know whether the contact and non-contact farmers differ significantly in respect of their over technology. The calculated 'z' value was found to be significantly at 0.01 level of probability indicating thereby that the overall technological gap in adoption of gram production practices for non-contact farmers was found significantly higher than the contact farmers.

IMPLICATIONS

There was a wide gap in the production potential and actual realization. In order to narrow the gap, speedy diffusion of technology and services needs to be geared up. The ways for a speedy transfer of technology are, to organize crop demonstrations and minikit trials, to plan and organize a special correspondence course on scientific gram cultivation and to make intensive use of mass media in communicating production messages to the farmers. To facilitate the gram growers to adopt recommended production technology, the production inputs need to be supplied timely. The input supply agencies should attend the fortnightly training programme regularly. This may help to ensure a strong linkage between extension and inputs supply agencies.