

CONSTRAINTS IN RAPESEED AND MUSTARD CULTIVATION IN RESPECT OF SOIL TECHNOLOGY AMONG SMALL FARMERS

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ABSTRACT

The study has been conducted to analyse the main reasons for technological gap of Rapeseed and Mustard cultivation, in respect of soil technology, among small farmers of Bharatpur District of Rajasthan. 108 small farmers have been interviewed with the help of well structured interview schedule. Only percentage was employed to discuss the results derived regarding the technology gap in Rapeseed and Mustard crop in respect to soil technology. Lack of soil testing facility, lack of extension personnel interest, lack of awareness about importance of soil testing results and non-availability of results of soil testing. Lack of knowledge about chemical used in soil treatment chemicals required for soil treatment are costly, 'Lack of awareness', 'Lack of resources', 'Not convinced about usefulness of summer ploughing', 'Lack of finance', 'High cost is involved in improved implements' under tillage technology were some of the important reasons of technological gap of rapeseed and mustard production technology.

INTRODUCTION

During the year 1989-90 maximum numbers of programmes were launched to pace the production of oilseeds crops in the country. As a result groundnut production increase fairly but mustard could register only marginal increase in production. It is well known fact that agricultural scientists have recommended a number of improved farm techniques to get the higher yield of mustard but the adoption of these technologies did not received due attention due some reasons. From the available technologies hardly 50.00 per cent technologies were adopted by 20.00 per cent farmers. Even if technologies has been adopted by big or affluent farmers, small and marginal farmers could not convinced with their benefits. It shows that the techniques which were developed to boost upto the rapeseed and mustard production not reached actually its destination. There is a big gap between the techniques available at research station and the techniques in the farmer's hand. Therefore, it is essential to know the possible reasons for existing gap in mustard cultivation with regards to soil technology. The study was undertaken with the following objectives:

- (1) To identify major constraints responsible for low adoption of soil technology in mustard cultivation.

RESEARCH METHODOLOGY

This study was conducted in the Bharatpur district of eastern Rajasthan. Eastern Rajasthan is considered economically backward and dense populated area in comparison to other part of state. Bharatpur. The district is very rich in terms of soil but the average mustard production of the district was farm in about 9.79 qtlha, while average yield of mustard in Rajasthan in the year 1995-96 was 11.07 qtlha which shows a big gap in production.

There are total 9 Panchayat Samities in the district, out of which 3 Panchayat Samities have been selected for the study. From each selected Panchayat Samiti 9 villages has been selected from each village 12 small farmers were selected. This way 108 representative samples for mustard growers were selected as a respondent of the study. The 'Random Sampling' method was employed in case of selection of Panchayat Samities, villages and respondents.

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The present study was based on both primary and secondary types of data. The primary data was collected with the help of well structured interview schedule. The data so collected were classified, tabulated, analysed and simple percentage was used to describe the reasons for technological gap in mustard cultivation, pertaining to soil technology. The statistical measurements Chi-square and coefficient correlation was used to find out the relationship between socioeconomic background

of the respondents and extent of adoption of new technology of rapeseed and mustard cultivation.

RESULTS AND DISCUSSION

The findings regarding possible reasons responsible for technological gap of soil technology are presented in Table 1.

Table 1 clearly indicates, that in case of 'Soil testing technology', small farmers have experienced

Table 1. Reasons for technological gap in respect of soil technology as expressed by the small farmers

S. No.	Technology	Reasons	No. of respondents	%	Rank order
1.	Soil testing	a. Lack of soil testing facilities	103	95.37	I
		b. Lack of extension personnel interest	60	55.55	II
		c. Lack of knowledge about soil sampling method	46	42.59	IV
		d. Lack of awareness about importance of soil testing	50	46.29	III
		e. Lack of conviction about utility	37	34.25	V
		f. Non-availability of results soil testing	50	46.29	III
2.	Soil treatment	a. Lack of knowledge about chemical used in soil treatment	78	72.22	I
		b. Chemicals are Costly required for soil treatment	65	60.18	II
		c. Lack of awareness	52	48.14	III
		d. Lack of finance for purchase of soil treatment chemicals	41	37.96	IV
		e. Uncertainly due to lack of assured irrigation or dry farming	35	32.40	V
		f. Non-availability of chemicals as per recommendations	30	27.77	VI
		g. Difficult to use fumigants and soil amendments in the problematic soils	15	13.88	VII
3.	Summer ploughing	a. Lack of finance	43	39.81	III
		b. Not convinced about usefulness of summer ploughing	66	61.11	II
		c. Hard surface of land	32	29.62	IV
		d. Lack of resources	68	62.96	I
4.	Ploughing	a. Lack of finance	65	60.18	I
		b. Lack of resources	50	46.29	II
		c. High cost of improved farm implements	46	42.59	III

Note: More than one constraints has been reported by the respondents, hence total percentage exceed to 100.

the problem of 'Soil testing', 'Lack of soil testing facilities' because the agriculture department not approach to the farmers (95.37%), 'Lack of extension personnel's interest in soil testing' (55.55%), 'Lack of awareness and non-availability results of soil testing (46.29%)', 'Lack of knowledge about soil sampling methods (42.59) etc.

The table further indicates, that in case of 'Soil treatment' technology, 72.22 per cent small farmers reported 'Lack of knowledge about chemical used' while, 60.18 per cent expressed that they were not using chemicals because 'Chemicals are costly'. 'Lack of awareness, 'Lack of finance for purchase

of chemicals and lack of assured irrigation facility have been reported as major constraints by 48.14, 37.96 and 32.40 per cent respondents respectively. The problem of 'Non-availability of chemicals as recommended' and 'Difficult to use fumigants and soil amendments in the problematic soils' has been reported by 27.77 and 13.88 per cent farmers, respectively.

In case of summer ploughing 62.96 per cent small farmers acknowledged that they are not doing the practice due to 'Lack of resources' while, 61.11 per cent can reported that they are not doing the practice because they are not convinced about

summer ploughing. About 39.81 per cent respondents reported the 'Lack of finance' and 29.62 per cent reported the problem of 'Hard surface of land' as a major constraint for summer ploughing.

In case of ploughing technology the table further reveals that 60.18 per cent small farmers reported that the 'Lack of finance' was a major problem for ploughing and reported by 60.18 per cent farmers. The lack of resources and high cost of improved implements were reported as constraints by 46.29 and 42.59 per cent farmers, respectively.

The findings in the conformity with the findings of Khan (1985), Shriballabh et al. (1991) and Venkateshwara (1991).

CONCLUSION

Based on finding it could be concluded that the important problems/constraints experienced by the majority of the respondents were 'Lack of soil

testing facility', 'Lack of knowledge about chemical used in soil treatment', 'Lack of resources', 'non convinced by importance of summer ploughing', 'Lack of finance', 'Costly chemicals' and 'Lack of extension personnel's interest'.

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