



ADOPTION OF GREEN GRAM GROWERS ABOUT SCIENTIFIC CULTIVATION TECHNOLOGIES

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ABSTRACT:

The extent of Adoption is the most important for adopting any new technology or innovation for its worth. Green gram (*Vigna radiata* L.) is one of the most essential and widely cultivated pulse crops. It belongs to the family leguminous. Locally, it is also well-known as moong. Green gram contains about 25% protein of high digestibility and quality. It is used for various purposes either as a whole or in a variety of ways. Green gram is a newly introduced crop in the Chhotaudepur District and for the last few years, it has been under cultivation. For better production, farmers must understand and adopt scientific cultivation technologies of green gram cultivation. Keeping this in view, the present study entitled **Adoption of green gram growers about scientific cultivation technologies in Chhotaudepur district** was undertaken.

KEYWORDS:

ADOPTION, SCIENTIFIC TECHNOLOGIES, GREEN GRAM GROWERS.

INTRODUCTION

The cereals, pulses and oilseeds received a boost in production from a starving situation of importing food grains to a position to export after a green revolution in India. Cereals are consumed in large quantities and frequently by the vast majority of the population in the world. Cereals are used as a staple food in a large number of countries in the world because their cost of production is low and the cost-benefit ratio is high in terms of quantity and nutrients. Legumes are second to cereals as an important source of proteins. As regards consumption, there are two groups of legumes. First, there is a high-protein high-oil group like soybean, groundnut, lupine, etc. which are mainly used for processing. The second group comprises the moderate-protein low-oil types like green gram, cowpea, pea, lentil etc.

OBJECTIVE

1. To assess the extent of adoption of green gram growers about scientific cultivation technologies

MATERIALS AND METHODS

This study was purposively conducted in the Chhotaudepur district as researchers are rendering service at the College of Agriculture, Jabugam. Out of six talukas, four Talukas (Sankheda, Naswadi, Bodeli and Kawant) were selected purposively as these talukas have a maximum area under green gram cultivation. From each of these selected talukas, four villages having an area under green gram cultivation were randomly selected and from each selected village, 10 green gram growers were randomly selected making a total sample of 200 respondents.

To measure knowledge and adoption of green gram growers for scientific cultivation technologies, a suitable interview schedule was developed in consultation with experts of Agricultural Research Station, Jabugam; Main Pulse Research Station, AAU, Vadodara, and extension educationists of the university. The data were collected through personal interviews.

A well-structured, Gujarati version interview schedule was prepared in light of objectives and the responses from green gram growers were collected through interviews either at their homes or fields. The data were analyzed in light of the objectives with suitable statistical tools such as frequencies, mean, percentage and correlation coefficient.

RESULT AND DISCUSSION

The data depicted in Table 1 are related to the adoption of scientific cultivation technologies practices by the respondents.

It can be observed that 100 per cent of respondents adopted drilling as the sowing method of green gram. More than half of the respondents were found to have fully adopted the practices of the time of sowing (55.50 per cent), no. of irrigations (55.00 per cent) and improved varieties (54.50 per cent). Further, the majority of the respondents were found to have partially adopted practices like chemical weed control (75.00 per cent), basal dose of chemical fertilizers (64.50 per cent), spacing (53.00 per cent) and seed rate (51.50 per cent).

As far as non-adoption of scientific cultivation technologies is concerned, a relatively higher number of respondents was found in the case of improved varieties (45.50 per cent), followed by seed treatment of bio-fertilizer (39.00 per cent), control measures of YMV- (36.00 per cent) and

control measures of insects-pests (33.00 per cent).

TABLE 1: DISTRIBUTION OF THE RESPONDENTS ACCORDING TO THEIR EXTENT OF ADOPTION OF GREEN GRAM GROWERS ABOUT SCIENTIFIC CULTIVATION TECHNOLOGIES

Sr. No.	Scientific cultivation technologies	Extent of Adoption			n=200
		Fully adopted	Partially adopted	Not adopted	
1.	Time of sowing: (25 February to 25 March)	111 (55.50)	82 (41.00)	07 (03.50)	
2.	Improved varieties (GAM-5, Meha, K-851, Green gram-4 & Sabarmati)	109 (54.50)	00 (00.00)	91 (45.50)	
3.	Sowing method : (Drilling)	200 (100.00)	00 (00.00)	00 (00.00)	
4.	Spacing: (30 cm × 10 cm)	84 (42.00)	106 (53.00)	10 (05.00)	
5.	Seed Rate: (15 to 20 kg seeds/ha)	77 (38.50)	103 (51.50)	20 (10.00)	
6.	Seed treatment: (1.5 to 3.0-gram Thiram or Bavistin / kg seed)	44 (22.00)	99 (49.50)	57 (28.56)	
7.	Bio-fertilizer seed treatment: (5.00 ml Rhizobium / kg seed)	39 (19.50)	83 (41.50)	78 (39.00)	
8.	Basal dose of chemical fertilizers: (20 kg N + 40 kg P ₂ O ₅)	52 (26.00)	129 (64.50)	19 (09.50)	
9.	Chemical weed control: Pendimethalin 1.5 kg / 500 litres water	37 (18.50)	150 (75.00)	13 (06.50)	
10.	First irrigation after sowing: (After flower initiation at 25 to 30 days)	91 (45.50)	97 (48.50)	12 (06.00)	
11.	Total irrigation: (4 to 5)	110 (55.00)	77 (38.50)	13 (06.50)	
12.	Control measures of insects-pests: (Aphids,Jassids, Whitefly&Heliothis)	85 (42.50)	89 (44.50)	66 (33.00)	
13.	Control measures of major diseases : (YMV-any sucking type pesticides & Powdery Mildew- 0.15% wettable Sulphur / carbendazim 0.25% solution)	52 (26.00)	76 (38.00)	72 (36.00)	

Note: The figure in the bracket indicates the percentage

CONCLUSION

Concluding the findings, it can be stated that the adoption of scientific cultivation technologies is concerned, majority of the respondents had fully adopted the recommended sowing method, time of sowing and no. of irrigation, whereas the majority of the respondents had partially

adopted the recommended chemical weed control, basal dose of chemical fertilizers, spacing and seed rate. Non-adoption was found to be more prominent in the case of improved varieties, seed treatment of bio-fertilizer, control measures of the major diseases and insects-pests in green gram cultivation.

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