

Association between Personal Attributes of Farmers with Their Knowledge and Adoption of Green Gram Production Technology in Chhotaudaipur District

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ABSTRACT

In ayurvedic cooking, it is used as a whole or, more commonly, split and hulled. Split and hulled green gram are small and yellow and called mung (moong) dal in India. Green gram is one of the most cherished foods in ayurveda. They are tridoshic- they can be eaten to balance all three doshas, especially when cooked with spices appropriate for each dosha. They are very nourishing, while being relatively easy to digest- they do not generally create abdominal gas or bloating, as the drawbacks of larger beans. Persons recuperating are often recommended khichari, a combination of rice and green gram, because of their ability to provide a good level of nourishment without overtaxing the digestion. They offer the astringent taste. According to modern nutrition, Green gram offer 14 g of protein per cooked cup. Green gram is also a good source of dietary fiber. They also contain thiamin, iron, magnesium, phosphorus, potassium and copper, and are a good source of foliate. The majority of farmers belonged to the middle age group i.e., between 30-54 years. It was further found that 63.0 farmers belonged to the up to secondary category of educational level. The majority of farmers were more than 2.00 ha land followed by small farmers and marginal farmers in the study sample. It was also found 88.00 per cent farmers belonged to the (Above Rs. 24000 income per annum).

Keywords: A Green gram production technology, Knowledge, Adoption, Association

INTRODUCTION

Green gram is an important pulses crop in India and believed to be originated from India. It is short duration legume crop grown mostly as a fallow crop in rotation with rice. Similar to the leguminous pulses, green gram, enriches soil nitrogen content. It is grown mostly in Asian region traditionally while its cultivation has spread to Africa and Americas relatively in the recent times. More than 70% of world's green gram production comes from India. Green gram, similar to other pulses, is grown primarily for its protein rich seeds. Green gram contains 20-25% protein. The plants are sometimes cut and ploughed into the soil to enrich soil nitrogen.

India is the world's largest producer as well as consumer of green gram. It produces about 17.52 million M tons of green gram annually from about 3.4 million hectares of area, with an average productivity of 500kg per hectare. Green gram output accounts for about 10-12% of total pulse production in the country.

Green gram production in the country remained stable more than a decade from the year 2000, the production

around 10 to 15 lakh tons. But a sudden jump in output was noted in 2010-11 to 17.5 lakh tones.

There is a distinct change in production pattern of green gram across states. Traditionally Rajasthan, Maharashtra and Andhra Pradesh are major green gram producing states. But there is significant rise in production from other states in recent years particularly from Gujarat, Karnataka, Tamil Nadu and Uttar Pradesh.

Number of steps has been initiated by the central/ state government to boost-up the production of pluses crop. There are several transfer of technology projects of the ICAR like the All India Coordinated Project on National Demonstration (AICPND), Operation Research Project (ORP), NFSM, NMSA, RKVY, A3P, Krishi Vigyan Kendra (KVK) and Lab to Land Programme (LLP), National Pulse Production Scheme (NPPS). In these projects the main aim is to enhancing the production of green gram at farmer's field by providing latest technical know-how.

METHODOLOGY

The study was conducted in Chhotaudaipur district

of Gujarat. The Chhotaudaipur was selected based on following reasons. Chhotaudaipur is one of the new develop district and KVK mangalbharti is located in the same district. Out of six talukas of the district five (5) talukas were selected basis on the area under Green Gram cultivation.

Two villages were selected from each talukas on basis of maximum area under green gram cultivation. From selected 10 villages a sample of 100 Green Gram growers has been made in such a manner that the number of Green Gram growers selected from each village has been proportionate to the total number of Green Gram growers of the respective village.

RESULTS AND DISCUSSION

Distribution of farmers according to their selected personal characteristics

(1) Age of farmers

Table 1 shows that majority of farmers belonging to middle age group i.e. between 30-54 years of age. This age group constitutes 61.00% of the total sample. Further, farmers 21.00% were from young and 18.00% of old age group.

(2) Education

The data in Table 1 shows that 63.00 % of the total farmers were educated up to secondary, 23.00 % illiterate (no schooling) and 14.00% were observed above secondary level of education in study area.

(3) Size of land holding

Observation of Table 1 reveals that majority of farmers belonged to Above 2 ha land holding group. This land holding category alone constitutes 64.00 per cent of the total sample. Further, 18.00 per cent were in small farmers category whereas, remaining i.e., 18.00 per cent farmers were in the marginal farmer's category.

(4) Income

The data incorporated in Table 1 clearly show that majority of the farmers i.e., 88.00 per cent were from above 24000 rs per annum, while only 12.00 per cent farmers were found to be below 24000rs per annum.

(5) Social participation

Table 1 shows that 30 % farmers were not the member of any organization, 45.00% were the member of one organization, and 25.00% farmers had possessed the position of office bearer.

Table 1: Distribution of farmers according to their personal attributes n=100

Sr. No.	Personal attributes	Farmers	
		F	%
1	Age		
(i)	Young (below 30 years)	21	21
(ii)	Middle (30-54 years)	61	61
(iii)	Old (above 54 years)	18	18
2	Education		
(i)	Illiterate	23	23
(ii)	Up to secondary	63	63
(iii)	Above secondary	14	14
3	Size of land holding		
(i)	Marginal (less than 1 ha.)	18	18
(ii)	Small (1-2 ha.)	18	18
(iii)	Big (above 2 ha.)	64	64
4	Income		
(i)	Above ₹ 24000/ Annum	88	88
(ii)	Below ₹ 24000/-Annum	12	12
5	Social participation		
(i)	No member of any organization	30	30
(ii)	Members of organization	45	45
(iii)	Office bearer	25	25

F= frequency, %= percentage

Association between selected personal characteristics of green gram growers with their level of knowledge about green gram production technology

(1) Age

Table 2 shows that the age of the Green gram growers was significantly correlated with their knowledge level of farmers about green gram production technology

(2) Education

Farmers which were highly significant with the knowledge level about green gram production technology at 1 per cent level of significance; it means educational level of farmer's effect significantly on the knowledge level.

(3) Size of land holding

Size of land holding of farmers was highly significant correlated with knowledge level at 1 per cent level of significance. Thus reveals that there is correlation between knowledge and land holding of farmers.

Table 2 : Association between personal attributes and knowledge level of farmers about green gram production technology n=100

Sr. No	Variables	Co-efficient correlation 'r' value
X ¹	Age	0.85*
X ²	Education	0.857**
X ³	Size of land holding	0.72**
X ⁴	Income	0.669**
X ⁵	Social participation	0.818*

* and ** indicate significance of values at 0.05 and 0.01 respectively, NS – Non-significant

(4) Income

It can be seen from the Table 2 that farmer's income was significant at 1 per cent level of significance. It means income variable exerted highly significant effect on the knowledge level of farmers.

(5) Social participation

The social participation was positively and significantly co-related with the Knowledge level of the farmers. This might have been due to the reason that the social participation gave on opportunity to green gram growers to widen their scope for interacting and discussing with their fellow farmers about their problems and this interaction might some time help the green gram growers in understanding the utility of new innovations and in strengthening the already established positive opinion about new technologies resulting in more knowledge.

Association between selected personal characteristics of green gram growers with their level of adoption about green gram production technology.

(1) Age

The data incorporated in Table 3 show that the farmers which were significantly associated with the extent of adoption of farmers about green gram production technology at 5 per cent level of significance. It means age of

farmers exerted a significant effect on the extent of adoption of farmers.

Table 3 : Association between age and adoption level of farmers about green gram production technology.

Sr. No	Variables	Association with Adoption Level
		Co-efficient correlation 'r' value
X ₁	Age	0.666*
X ₂	Education	0.677**
X ₃	Size of land holding	0.16NS
X ₄	Income	0.443**
X ₅	Social participation	0.612*

* and ** indicate significance of values at 0.05 and 0.01 respectively, NS – Non-significant

(2) Education

It can be seen from the Table 3 that farmers, which were significantly associated with the extent of adoption of farmers about green gram production technology at 1 and 5 per cent level of significance, It means education level of farmers exerted significant effect on the extent of adoption of farmers.

(3) Size of Land holding

The data incorporated in Table 3 show that the farmers which were non-significant with the size of land holding.

(4) Income

The critical study of Table 3 reveals those farmers which were highly significant at 1 and 5 per cent level of significance. This reveals that there is significant association between income and extent of adoption of farmers.

(5) Social participation

The study of Table 3 reveals that farmers significant correlation with social participation and extent adoption of farmers about green gram production technology

CONCLUSION

The majority of farmers belonged to the middle age group i.e., between 30-54 years. It was further found that

63.0 farmers belonged to the up to secondary category of educational level.

The majority of farmers were more than 2.00 ha land followed by small farmers and marginal farmers in the study sample. It was also found 88.00 per cent farmers belonged to the (Above ₹ 24000 income per annum). The 30.00% of farmers were no member of any organization followed by member of one organization (45%) and office bearer of organization (25%).

There was significant association between different variables viz., age, education and income with knowledge level as well as extent of adoption of the farmers. Personal attributes of farmers like land holding was significantly associated with knowledge level but not associated with the extent of adoption level.

REFERENCES

- Asiwal, B.L. (2006). Impact of front line demonstration of adoption on improved mustard production technology among the farmers of Laxmangarh panchayat samiti of Sikar district of Rajasthan. M.Sc. (Ag.) Thesis, (Unpub.), R.A.U., Campus-Jobner.
- Dangi, K.L. and Intodia, S.L. (1998). Adoption behaviour of contact and follower farmers under T & V system in Indira Gandhi Canal project area of Rajasthan. *Raj. J. Extn. Edu.*, 2 (1) : 50-55.
- Arneja, C.S. and Khangura, R.S. (2003). "A study of the knowledge of pea growers and its association with their selected socio personal characteristics". *Rural India*, 66 : 166-168.
- Dattari, P. (1980). Extent of knowledge and adoption of improved practices of rice cultivation by contact and non-contact farmer under T & V system in Karimnagar district of A.P. M.Sc. (Ag.) Thesis, Rajasthan Agricultural University, Bikaner, Campus- Jobner.
- Geengar, H.K. (2006). Knowledge and adoption of maize production technology by the tribal and non-tribal farmers in Jahazpur panchayat samiti of Bhilwara district (Raj.). M.Sc. (Ag.) Thesis, (Unpub.), R.A.U.. campus- Jobner.
- Patil, H.S., Purkar, J.K. and Deshmukh, M.R. (2003). Impact of frontline demonstration on niger in Maharashtra. *Bhartiya Krishi Anusandhan Patrika*, 18 (1&2) : 53-67.
- Nakela, N.S. (1989). Kharif Pulse Technology accessibility to farmers in tribal and non-tribal areas of Udaipur district (Rajasthan). M.Sc. (Ag.) Thesis, (Unpub.), R.A.U.. campus- Udaipur.
- Narpat, S. (2004). Knowledge and adoption of recommended technology of mustard cultivation in Jhunjhunu District of Rajasthan. M.Sc. (Ag.) Thesis (Unpub.), R.A.U.. campus- Jobner.
- Poonia, A. (2002). Technological gap among the kinnow (*Citrus deliciosa*) orchard owners in Sriganganagar district of Rajasthan. M.Sc. (Ag.), Thesis (Unpub.), M P U A T, Udaipur.
- Rathore, N.S. (2001). A study on adoption of improved cultivation practices of mungbean (*Vigna radiata*) among the farmers of Nagaur district of Rajasthan. M.Sc. (Ag.) Thesis (Unpub.), MPUAT, Udaipur.
- Rathore, S.S., Deepak, D. and Chouhan, J. (2003). Factors associated with the knowledge level of farmers about improved agricultural practices of mustard cultivation in Jalore. *Indn. Res. J. Extn. Edu.*, 3. (1) : 4-6.
- Singh, N. and Sharma, F.I. (2005) impact of fld on gain in knowledge about mustard production technology among farmers of bharatpur district". *indn. res. j. extn. edu.*, 5 (1) :18-20.
- Singh, R.P, Tyagi, M.S., Tomar, A.S., Bhagwat, P.D., Mandape, M.K. and Badgujar, V.K. (2008). Extent of adoption of improved practices of mothbean production technology by farmers in Jodhpur district of Rajasthan. 3rd National Symposium on Enhancing Productivity, Nutritional Security and Export Potential Through Arid Leg., *Abstract*, 28-30 (132-133).
- Singh, B., Singh, R. and Chouhan, K.N.K. (2003). Adoption and constraints in mothbean production technology in arid zone of Rajasthan. *Advances in Arid Leg. Res.* Indn. Arid Leg. Society and Scientific Publisher (India), Jodhpur, 510-514.