



ADOPTION OF RECOMMENDED MUSTARD CULTIVATION PRACTICES BY THE MUSTARD GROWERS

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Abstract-Association analysis of personal, socio economic, communication and psychological characteristics of mustard growing farmers of Gujarat with extent of adoption was studied amongst 200 mustard growing farmers of North Gujarat. The study revealed that education, social participation, scientific orientation, innovativeness, extension contact, size of landholding, irrigation facility and annual income characteristics of the mustard growing farmers were positively and significantly related with extent of adoption of mustard cultivation technology by the farmers at 0.01 level of significance, while, the age had negative and significant relationship with the adoption of mustard cultivation.

Keywords- Mustard Cultivation, Adoption

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Introduction

Adoption is a mental process. In the modern era, new things are being invented by agricultural scientists but all the innovations are not being adopted by many of the members of social system. Adoption of an innovation depends on many factors viz., awareness and knowledge of adopters, innovativeness, characteristics of an innovations. It is generally assumed that if an individual has more knowledge about different aspects of technologies, he is likely to adopt the innovations with higher speeds. Several transfer of technology (TOT) programmes are in operation to help farmers to adopt the new technologies in our country, but there is a wide gap between the technology available at the research farm and its adoption. Keeping this in mind an attempt has been made to know the extent Adoption of improved mustard cultivation practices by the farmers.

Materials and Methods

The present study will be conducted in Banaskantha district of Gujarat state as the district ranks first in area and production of the crop. Among the talukas of Banashknatha district Dhanera and Tharad talukas will be purposively selected having highest area of the mustard crop, ten villages having highest area under mustard cultivation will be selected purposively from each taluka. Using random sampling technique mustard growers will be selected from each village consisting a sample of 200 respondents. The selected independent variables viz., age, education, social participation, land holding, irrigation facility, annual income, scientific orientation, risk preference, economic motivation, innovativeness and extension contact, will be measured by using suitable scales and procedure developed by various researcher in past with necessary modifications. Adoption quotient formula developed by Sengupta (1967) was used to find out extent of adoption of mustard cultivation technology. The data will be collected with the help of structured schedule and will be pretested. The data collected will be then analyzed in the light of objectives for arriving at meaningful interpretation. The statistical to be to analyse the data will be percentage, mean, ranking and coefficient of correlation.

Results and Discussion

Table-1 Distribution of the respondents according to their level of adoption
n=200

Sr. No	Extent of adoption	Number	Per cent
1	Low (Up to 9 score)	26	13.00
2	Medium (9.1 to 13 score)	146	73.00
3	High (above 13 scor)	28	14.00

The data presented in [Table-1] clearly indicate that majority (73.00 %) of the respondents were having medium level of adoption. On the other hand, 14.00 per cent of respondents falls under the category of high level adoption. While, 13.00 per cent respondents were found having low level of adoption of recommended mustard cultivation technology.

Table-2 Practice wise adoption recommended hybrid mustard practices by mustard growers. n=200

Sr. No	practice	Adoption		
		Frequency	Per cent	Rank
1	Threshing	190	95	I
2	irrigation applied	188	94	II
3	Interculturing	180	90	III
4	Picking and Harvesting	178	89	IV
5	Improved variety	176	88	V
6	Time of sowing	164	82	VI
7	Spreading for drying	164	82	VI
8	Weeding	154	77	VII
9	Chemical fertilizer	116	58	VIII
10	Farm yard manure	88	44	IV
11	Spacing	86	43	X
12	Seed rate	84	42	XV
13	Pest control measures	36	18	XII
14	Seed treatment	18	9	XII
15	intercropping	16	8	XIV
16	Diseases control measures	12	6	XV

The data presented in [Table-2] reveal that the overwhelming majority had adopted the practices viz., threshing (95%), irrigation application (94%), inter-culturing (90%) picking and have sting (89%), improved variety (88%), sowing time and spreading for drying capsules (82%) and weeding (77%) and ranked I, II, III, IV, V, VI, and VIII, respectively. Whereas, majority of the farmers had adopted chemical fertilizers (58%) and ranked VIII. While, little less than majority farmers adopted the practices like farm yard manure (44%) spacing (43%) and seed rate (42%) and ranked IX, X and XI respectively. Further, the recommended practices in respect of pest control measure (18%), seed control measure (6%) were adopted by very and ranked XII, XIII, XIV and XV.

From the above discussion, it can be concluded that threshing irrigation application, variety inter-culturing, sowing time, spreading for drying capsules and weeding practices were the practices adopted by great majority of the farmers. While the practices viz., seed treatment, plant protection measures and intercropping were fond adopted by negligible farmers.

Table-3 Relationship with selected characteristics of Mustard growers, and their extent of adoption of recommended Mustard cultivation technology

Sr. No	Variables	Coefficient of correlation (r'value)
1	Age	-0.21499**
2	Education	0.53866**
3	Social participation	0.34840**
4	Land holding	0.13926**
5	Irrigation facility	0.17588**
6	Annual income	0.18196**
7	Scientific orientation	0.56250**
8	Risk preference	0.48763**
9	Economic motivation	0.15085**
10	innovativeness	0.63231**
11	Extension contact	0.64369**

Ns: Non Significant

* : Significant at 0.05 per cent level of the probability

** : Significant at 0.01 per cent level of the probability

The result regarding relationship between selected characteristics of mustard growers and extent of adoption of Mustard cultivation technology by the respondents are depicted in [Table-3]. There are twelve variable used for the study, out of them eleven variables were positively and significantly related with extent of adoption of Mustard cultivation technology by the farmers, while age variable had negatively and significantly related with extent of adoption of mustard cultivation technology.

Conclusion

Majority of the mustard growers had medium extent of adoption of recommended hybrid mustard cultivation technology. It can be concluded that threshing irrigation application, variety inter-culturing, sowing time, spreading for drying capsules and weeding practices were the practices adopted by great majority of the farmers. While the practices viz., seed treatment, plant protection measures and intercropping were fond adopted by negligible farmers.

The independent variables viz., education, land holding, annual income, social participation, extension contact, sources of information, economic motivation, scientific orientation, innovativeness and knowledge level were found positively and significantly correlated with of adoption of recommended mustard cultivation technology by the mustard growers. The unavailability of certified seed, high cost of inputs, insufficient irrigation facility and high rate and irregular supply of electricity were the major constraints faced by the mustard growers in adoption of recommended mustard cultivation technology.

Conflict of Interest: None declared

References

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