Knowledge Level of Tribal Farmers regarding Okra Production Technology in South Gujarat

Nikulsinh M. Chauhan[1]

1.Prof. (Ext. Edu.) & Principal, Polytechnic in Agriculture, NAU, Vyara, Tapi, Gujarat, India

Corresponding author e-mail: nikulsinh_m@yahoo.in

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ABSTRACT

The study was conducted in January-2017 in South Gujarat region of Gujarat. Total 300 okra growers were included in the study. Okra is the main vegetable crop in rabi season in this region. Based on this study it was seen that the majority of the respondents were belonged to middle age group, educated up to secondary to higher level, medium level of farming experience in okra, possessed marginal size of land holding, annual income ranging from Rs.50,000/- to Rs.1,00,000/, medium level of social participation, medium level of extension contact, had medium level of scientific orientation and had medium level of mass media exposure. The age of the respondent was found no significant with their knowledge level followed by size of land holding and annual income. Where as, social participation was found negative significant with their knowledge level. However, education and extension contact were found significant with their level of knowledge regarding okra package of practices. Farming experience, scientific orientation and mass media exposure were found highly significant with their level of knowledge regarding okra package of practices. The Weed control through herbicides is technically complex phenomenon but now a day essential and hence proper training should be given to them. The second highest suggestion was bio-control aids must be available at local place with remunerative price, Followed by Intensive trainings about improved technologies of seed, weedicides and plant protection measures must be in KVK or ATMA, Assured marketing at remunerative price and insurance policy facility should be avail from Government, Intensive trainings should be given by government for IPM, especially for Bio control and operational skill in the plant protection equipments and so on.

***Key words** : Okra; Social participation; Farming experience; Weed control; KVK; ATMA;*

Okra is the major export oriented, cash crop and short duration high profitable and is recognized for its better prospects. It is therefore, the ultimate choice of marginal and sub-marginal farmers for realization of sustained production under the favourable and temperate climate of the region. Okra is grown in about 2000 ha area during Rabi season is confined to Tapi district only. Total turnover of tribal area of okra growers was 40.00 crores. Okra is an important Rabi vegetable crop of Tapi district as a whole. This occupies about 40 per cent of the area in Rabi. However, the productivity in Tapi is not as per expectation of the okra growers.

Off season okra is grown in large cluster as well as in sprinkled manner under specific agro-climatic, soil and input situations in all over Tapi district of South Gujarat to meet varied necessities of vegetables and associated requirements. Off-season okra cultivation is highly remunerative and gainful in alleged area. The okra cultivation in this region is practiced after harvest of early paddy varieties of kharif. A sizable area is covered under off-season okra farming in Tapi. Good market facilities for okra exporting are also fashioned in the district. One main and five sub centers for okra collection and further process of exporting is also twisted in Tapi. Vyara APMC and all of the five collection centers are also decorated full-fledged for okra collection and further process of exporting as well as selling in local, Indian and International markets. The off-season okra cultivation in this area is highly suited and giving better remuneration to the cultivars. This crop has changed the economic condition of the tribal farmers in the region. Keeping this in view, a study was undertaken

to find out the correlation between personal profile and knowledge of tribal farmers of south Gujarat. To seek their suggestions to improve the production and Profitability of this crop in Tribal Region as a cash crop.

METHODOLOGY

Gujarat state comprises eight agro-climatic zones. Out of these eight agro-climatic zones, the Zone-I and II were selected purposely for the study. As these zones are comprised of four districts, out of these, Tapi district was selected randomly. From the selected district 40 per cent areas were selected randomly. Three blocks were selected out of seven blocks of the Tapi. Two villages were randomly selected from each gram panchayat. The study was conducted in 30 villages of Tapi district of South Gujarat with the sample size of 300 okra growers. A list of all the farmers who were growing okra crop since last 5 years were prepared for each selected village. From the list of farmers so prepared 40 per cent respondents were selected randomly. Total villages selected were 30 and from each of the villages 10 respondents were selected randomly and hence, total respondents were 300. The frequency, percentage, ranking and correlation coefficient were employed to analyze the data.

RESULTS AND DISCUSSION

Distribution of respondents according to their personal characteristics : The data presented in Table 1 indicate that nearly two-third (64.00%) of the okra growers were belonged to middle age group, majority of the okra growers were educated up to secondary to higher secondary level of education, majority (64.00%) of the okra growers were having medium level (10-20) of farming experience, majority (70.00%) of the okra growers had possessed marginal size of land holding, more than half (58.00%) of the respondents had medium annual income ranging from Rs.50,000/- to Rs.1,00,000 /-, 58.00 per cent of the respondents had medium level of social participation,59.00 per cent of the respondents had medium level of extension contact, 51.00 per cent of the respondents had medium level of scientific orientation and 56.00 per cent of the respondents had medium level of mass media exposure. *Salunkhe et al (2017)* also reported the same.

Association between personal profile of the okra growers and there level of Knowledge: Data presented in Table 2 clearly indicate that the age of the respondent was found no significant with their knowledge level followed by size of land holding and annual income. Whereas social participation was found negative significant with their knowledge level. However, education and extension contact were found significant

Table 1. Distribution of respondents according to their personal characteristics (N=300)

Personal Characteristics	No.	%
Age Group		
Young age (up to 35 years)	48	16
Middle age (36 to 50 years)	192	64
Old age (above 50 years)	60	20
Level of Education		
Illiterate	27	9
Primary (1st to7th standard)	48	16
Secondary (8th to 10th standard)	150	50
Higher secondary (11th & 12th)	72	24
Graduate	3	1
Post Graduate	0	0
Farming experience		
Low (up to 10 years)	48	16
Medium (10 to 20 years)	192	64
High (above 20 years)	60	20
Size of land holding		
Marginal (upto 1.00 ha)	210	70
Small (1.01 to 2.00 ha)	57	19
Medium (2.01 to 4.00 ha)	33	11
Big (above 4.00 ha)	0	0
Annual income		
Low annual income (up to Rs. 50,000/-)	102	34
Medium annual income (Rs.50,001 to 1,00,000/-)	174	58
High annual income (above Rs. 1,00,000 /-)	24	08
Social participation Mean=1.78, S.D.=0.61		
Low Social Participation (Below 1.17)	96	32
Medium Social Participation (1.17 to 2.39)	174	58
High Social Participation (Above 2.39)	30	10
Extension Contact Mean=1.93, S.D.=0.64		
Low Extension Contact (Below 1.29)	72	24
Medium Extension Contact(1.29 to 2.57)	177	59
High Extension Contact (Above 2.57)	51	17
Scientific Orientation Mean=8.59, S.D.=2.04		
Low Scientific Orientation (Below 6.55)	78	26
Medium Scientific Orientation (6.55 to 10.63)	153	51
High Scientific Orientation (Above 10.63)	69	23
Mass Media Exposure Mean=8.12, S.D.=2.10		
Low Mass Media Exposure (Below 6.02)	87	29
Medium Mass Media Exposure (6.02 to 10.22)	168	56
High Mass Media Exposure (Above 10.22)	45	15

with their level of knowledge regarding okra package of practices. Farming experience, scientific orientation and mass media exposure were found highly significant with their level of knowledge regarding okra package of practices. Education makes a man perfect and change their vision and respectability. Education is the key factor to acquire knowledge from knowledge bank of others. This might have been resulted here. Extension contact may definitely change the knowledge level of an individual. Extension contact is the key to change the vision and adoption of the people. These were the probable causes of this result. With increasing an experience by a man can learn the many things through failure and success. The experience is the best teacher for everybody. Here these things are focused and farming experience found highly significant with level of knowledge regarding okra package of practices. Mass media contact and Scientific Orientation are also important factors to get knowledge from inner and outer resources. Scientific orientation and mass media exposure might have increased their level of knowledge regarding okra package of practices. These results are also in line of the *Chauhan (2016), Patel and Chauhan, (2015),Chaturvedi (2000)* and *Salunkhe et al (2017).* All have also reported the same in tribal region study

Table 2. Association between personal profile of the okra growers and there level of Knowledge

Independent variables	(r)
Age	0.0372^{NS}
Education	0.2098*
Farming experience	0.3727**
Size of land holding	0.0692^{NS}
Annual Income	-0.0967^{NS}
Social participation	-0.1034*
Extension Contact	0.2684*
Scientific Orientation	0.5020**
Mass Media Exposure	0.5375**

** Significant at 0.01
** Significant at 0.05 level of probability

Table 3 clearly indicates that the Weed control through herbicides is technically complex phenomenon but now a day essential and hence proper training should be given to them. The second highest suggestion was bio-control aids must be available at local place with remunerative price because these are an important component in organic Era, Followed by Intensive trainings about improved technologies of seed, weedicides and plant protection measures must be in KVK or ATMA, as these are dominant factors of production and profitability along with human health. Assured marketing at remunerative price and insurance

Table 3. Suggestions as perceived by respondent to improve okra production and profit.

Particulars	MS	Rank
Weed control through herbicides is technically complex phenomenon but now a day essential. Proper training should be given to them.	1.63	I
Biocontrol aids must be available at local place with remunerative price	1.52	II
Intensive trainings about improved technologies of seed, weedicides and plant protection measures must be in KVK or ATMA.	1.40	III
Assured marketing at remunerative price and insurance policy facility should be avail from Government	1.36	IV
Intensive trainings should be given by government for IPM, especially for Bio control and operational skill in the plant protection equipments	1.32	V
Climate change should be forecasted well in advance and that too in local language. To avoid huge losses due to Frost, high wind velocity and low temperature affect the growth of crop , sucking pest infection	1.30	VI
Unavailability of inputs at the time of peak season should be resolved at government level	1.27	VII
Lack of knowledge regarding water policy decided by the Government for canal should be changed with a membership from Agri. University itself.	1.24	VIII
Inputs are too costly, rectify by government to some extent with subsidiary help.	1.21	IX
Lack of direct cooperative marketing system like milk marketing for okra should be introduced in the region.	1.19	X
Improved farm implements should be supplied by government with lower price or subsidy based.	1.17	XI
Fear of price fluctuation in okra market price should be avoided through proper management in marketing system by government and Cooperative system to avoid sudden losses to the okra producers.	1.14	XII

policy facility should be avail from Government to get higher profit and to raise the standard of living. Intensive trainings should be given by government for IPM, especially for Bio control and operational skill in the plant protection equipments as it is a current need of the time and so on. (Table 3). *Salunkhe et al (2017)* and *Rudragouda et al (2017)* also suggested the same.

CONCLUSION

Based on this study it was seen that the majority of the respondents were belonged to middle age group, educated up to secondary to higher level, medium level of farming experience in okra, possessed marginal size of land holding, annual income ranging from Rs.50,000/- to Rs.1,00,000 /, medium level of social participation, medium level of extension contact, had medium level of scientific orientation and had medium level of mass media exposure. The age of the respondent was found no significant with their knowledge level followed by size of land holding and annual income. Whereas, social participation was found negative significant with their knowledge level. However, education and extension contact were found significant with their level of knowledge regarding okra package of practices. Farming experience, scientific orientation and mass media exposure were found highly significant with their level of knowledge regarding okra package of practices. The Weed control through herbicides is technically complex phenomenon but now a day essential and hence proper training should be given to them. The second highest suggestion was bio-control aids must be available at local place with remunerative price, Followed by Intensive trainings about improved technologies of seed, weedicides and plant protection measures must be in KVK or ATMA, Assured marketing at remunerative price and insurance policy facility should be avail from Government, Intensive trainings should be given by government for IPM, especially for Bio control and operational skill in the plant protection equipments and so on.

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