

ORGANIC FARMING ANALYSIS ATTITUDE OF ORGANIC FARMERS

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ABSTRACT

During the last decade organic farming has gained international recognition as a viable option to conventional farming. In many parts of the country farmers practice organic farming by default or in absence of resources. The organic farming movement is spreading gradually in all most all states of the country. Indian organic sector is steadily making in-roads into world organic food market. India having variety of geographical and climatic regions has great potentiality to export various agricultural commodities in world market. The present study was undertaken in three districts viz., Sabarkantha, Bansakantha and Mehsana of North Gujarat state. These districts were purposively selected for the study having the more number of organic farmers. For selection of taluka, villages and respondents, multistage random sampling technique was employed. All the organic farmers were selected from each village. All the organic farmers were selected from 24 villages of 10 talukas, consisting a sample of 100 farmers. For data collection the structured schedule was prepared and using personal contact method data were collected. The data then coded, classified, tabulated and analyzed in order to get meaningful findings. In case of farmer's attitude towards organic farming all most all organic farmers had moderately favourable to highly favourable attitude as (96.00 per cent) towards organic farming.

Keywords: *Organic, Conventional, Farming, Export, Organic Farming Analysis Attitude Of Organic Farmers*

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INTRODUCTION

India is one of the few geographical locations of the world where agriculture was initiated by aboriginals. Old farmers had developed understandings of natural laws, climate and available resources; India has great treasure of indigenous technological knowledge too. Organic farming has been designated for creating eco-friendly and pollution free environment. That creates ecological balance and microenvironment suitable for sound health and growth of soil micro flora, plants, animals and human beings who consume farm products (Fukuoka 1985, Thakur 1997 and Weekakoddy 1999). In the last decade, organic farming gained international recognition as a viable substitute to conventional farming. There is an increasing awareness about health and environmental pollution resulting into preference and demand for organic foods by consumer and as such; the organic produce is fetching much higher prices in the market of USA, European countries and Japan. Economic status of the people in country like India mostly depends upon the agricultural production. Need for more intensive and economic agricultural production led to indiscriminate use of high doses of chemical fertilizers, pesticides etc, relentless use of these chemicals not only alter the eco-system but also claim death to many lives every year due to their hazardous nature.

Organic farming may be defined as a production system, which avoids or largely excludes the use of synthetically compounded fertilizers, pesticides, growth regulators, and livestock feed additive. The definition of organic farming has been perceived differently by different people. To the most of them, it implies the use of organic manures and natural methods of plant protection instead of using synthetic fertilizers and pesticides. The total Indian organic farming industry is estimated at around US\$ 20 million/Rs 100 crore (2000). The sixty eight per cent of total cultivated area in the state remain unirrigated even after commencement of Narmada irrigation water. Most of it is arid and semi arid including hilly tract from Banaskantha in north and to valsad in south were consumption of fertilizers and pesticides is considerably low. The spice belt of north Gujarat, fruit and vegetables belt of south Gujarat and ground nut and sesame belt of saurashtra can easily be brought under organic farming as these all crops have export potentials.

The resource poor areas of Surendranagar, Patan and Kutch district also have good opportunities in organic farming.

Organic farming is projected as a farming system with better prospects, remedy to solve present problems of conventional farming and sustainable method of cultivation. It is also important to know the attitude of farmers towards organic farming. Considering all the above points that success in organic farming depends upon it is assumed personal attributes, attitude towards it and management skill of farmers in making efficient use of the available resources. The study was undertaken with following specific objectives:

OBJECTIVES OF THE STUDY

1. To measure the attitude of organic farmers towards organic farming.
2. To study the relationship between selected characteristics of farmers and their attitude towards organic farming practices.

METHODOLGY

The present investigation was conducted in North Gujarat, which is purposively selected for the study. The voluntary organization “JATAN” promoted the activities of organic farming with the help of several devotee persons and institutes in north Gujarat. Farmers are tired of with the use chemicals and fertilizers particularly in hybrid cotton growing areas of north Gujarat. The organic farming movement has been continued for last ten years. Number of farmers are adopting organic farming and increasing day by day in the state as water is being scarce commodity. Hence, north Gujarat region was selected purposively for the study. Ex-post-facto research design is systematic and empirical method in which scientist does not have direct control on independent variables because their manifestations have already occurred. Hence in the present study, ex-post facto research design was followed. Simple random sampling method was used to select the respondents. The North Gujarat covers six districts and with the help of the various institutions and NGOs viz. JATAN trust (Baroda), and National Horticulture Mission the information regarding organic farming was collected. Based on the information collected, a district wise list of organic farmers was prepared. District in which more member farmers engaged in organic farming was selected for the study and such three districts viz., sabarkantha,

mehsana and banaskantha were selected purposively. Sabarkantha district is having 13 talukas and among these five talukas, Banaskantha district is having 12 talukas and among these three talukas, Mehsana district is having 9 talukas and among these two talukas having highest organic farmers were selected. The villages were selected from each taluka on the basis of members of organic farmers. Looking to these, 24 villages were selected.

Attitude is a state of readiness or a tendency to react in a certain manner. Attitude scales have been proved useful tools to measure the attitude of large number of individuals towards specific areas. Such an instrument stimulates people to express their attitude. In the present study attitude means negative or positive reaction of organic farming associated with organic farming. Attitude was measured with the help of statements score toward Attitude scale developed by Patel (2006). There were 20 statements in the scale which were administrated to the farmers and asked to express their reactions on five point score continuum viz. strongly agree, agree, undecided, disagree and strongly disagree. The scores given for the positive statements were 5, 4, 3, 2 and 1 respectively. The scoring for negative statements was just reversed. The maximum scale value thus one can obtained was 100 and minimum 20. The total attitude score for each respondent was obtained by adding the weight of his responses made to individual scale item.

For the purpose of measurement of extent of adoption of various recommended practices of organic farming by the organic growers, a simple teacher made adoption scale was developed and according to Sengupta (1967). The process was followed to find out “Adoption Quotient” to measure extent of adoption of various recommended organic farming practices as follows:

$$\text{Adoption Quotient} = \frac{\text{Number of practices used}}{\text{Number of recommended practices}} \times 100$$

RESULT AND DISCUSSION

1. Adoption of Organic Farming Practices:

According to Sengupta (1967) adoption is a decision to make full use of an innovation at the best course of action available. Adoption in this study is operationalized as organic farming practices followed by organic farmers on their own field. Extent of adoption of farming practices by

organic farmers was measured with the help of teacher made type test. The result regarding extent of adoption is depicted in Table 1.

Table 1: Extent of adoption of organic farming practices by organic farmers

Sr. No.	Extent of adoption	Organic farmers	
		Frequency	Per cent
1.	Low (Below 42.19)	22	22.00
2.	Medium (42.19 to 60.00)	65	65.00
3.	High (Above 60.00)	13	13.00
Total		100	100.00

The data in Table 1 reveal that 65.00 per cent of the organic farmers had medium level adoption. Remaining 13.00 per cent and 22.00 per cent of them had high and low extent of adoption respectively. Hence, it can be concluded that majority (65.00 %) of organic farmers possess medium extent of adoption of organic farming practices. Such a high adoption has been observed may be due to highly favourable attitude of organic farmers towards organic farming. Moreover they all were found educated, having good contact with NGOs, other progressive farmers and were receiver of farm literature too.

2. Practice-wise adoption of organic farming practices

The information regarding practices-wise adoption of organic farming is furnished in Table 2.

Table 2: Practice-wise adoption of organic farming by the organic farmers

Sr. No.	Practices	Number	percent	Rank
I	Crop Management			
1.	Inter cropping	90	90.00	I
2.	Mixed cropping	25	25.00	V
3.	Crop rotations	72	72.00	II
4.	Weed management without chemicals	65	65.00	III
5.	Water management	58	58.00	IV
6.	Mulching	21	21.00	VI
II	Nutrient management			
1.	Use of FYM	90	90.00	I
2.	Use of Compost	36	36.00	V
3.	Use of Vermicompost	76	76.00	III
4.	Green manuring	16	16.00	IX
5.	Use of oil cakes	58	58.00	IV
6.	Use of Natural minerals	18	18.00	VIII
7.	Use of Concentrated manures	31	31.00	VI
8.	Use of Poultry manure	26	26.00	VII
9.	Use of Biofertilizers	78	78.00	II
III	Pest/ disease management			
1.	Seed treatment	36	36.00	VI
2.	Use of herbal insecticide	46	46.00	IV
3.	Use of Cow dung/urine	55	55.00	II
4.	Use of Pheromone trap	56	56.00	I
5.	Use of Fruit fly trap	22	22.00	VII
6.	Use of Bird purcher	17	17.00	VIII
7.	Preparing Live hedge	09	09.00	X
8.	Sowing Trap crop	54	54.00	III
9.	Hand picking of insects	13	13.00	IX
10.	Use of Biopesticide	37	37.00	V

The data in Table 2 indicate that among crop management practices, inter cropping was adopted by maximum number of farmers with the highest (90.00 percent) and was ranked first, followed by crop rotation (72.00 percent), weed management without chemical (65.00 percent) and water management practices (58.00 percent) and were ranked second, third and fourth respectively. The poor adoption was found in the practices of mixed cropping and mulching. In mixed cropping, it is difficult to perform farming operations like weeding, inter culturing and harvesting. Moreover it involves more labour. Data with regards to nutrient management practices revealed that

application of FYM (90.00 percent) got first rank and was adopted by all the organic farmers, followed by use of bio-fertilizers (78.00 percent), use of vermicompost (76.00 percent), and use of oil cakes (58.00 percent) with the ranks second, third and fourth respectively. Use of FYM is quite natural as it is age-old traditional practices. While use of vermicompost, bio-fertilizers and oilcakes might have become popular among farmers, as they are rich organic sources of nutrient and comparatively cheap for nutrient management in organic farming. The probable reason could be that the farmers might not aware about the use of above sources of organic nutrient and they are not easily accessible to the farmers. The data in Table 2 further reveal that among pest/disease managements practices, use of pheromone trap got first rank (56.00 percent) followed by use of cow dung/urine (55.00 percent), growing trap crop (54.00 percent) and use of herbal insecticides (46.00 percent) to control pests/diseases with rank second, third and fourth respectively. The practices viz., seed treatment and application of bio pesticide were adopted by considerable number of farmers while use fruit fly trap, use of bird purcher, hand picking of insects and preparing live hedge around the farm had poor adoption among the organic farmers. The practices viz., fruit fly trap and hand picking of insects might have not adopted by the farmers because they are crop specific and insect specific while the practices viz., live hedge and bird purcher had not direct bearing with insect control. They serve as supportive medium for insect control hence might have not been popular among farmers.

3. Relationship Between Selected Characteristics Of Farmers And Their Attitude Towards Organic Farming.

To explore the relationship between independent variables and attitude of farmers, zero order correlation method was applied and the values of correlation coefficient (r) were estimated. These values have been given in Table 3.

Table 3: Correlation coefficient of selected independent variables with attitude of farmers

Sr. No.	Variables		'r' value
I	Personal variables		
	I	Age	-0.2030*
	Ii	Education	-0.8153**
	Iii	Organic farming experience	0.2745**
	Iv	Social participation	0.0995 ^{NS}
II	Economic variables		
	I	Land holding	0.2184*
	Ii	Herd size	0.2339*
	Iii	Annual income	0.2959**
	Iv	Cropping intensity	0.0024 ^{NS}
	V	Irrigation facility	0.0152 ^{NS}
III	Psychological variables		
	I	Innovation proneness	0.2787**
	Ii	Economic motivation	0.0672 ^{NS}
	Iii	Rationality in decision making	0.2866**
	Iv	Risk orientation	0.2677**
	V	Marketing orientation	-0.0371 ^{NS}
IV	Communication Variables		
	I	Sources of information	0.2436**
	Ii	Extension participation	0.2957**

(* Significant at 0.05 level of probability, NS = Non significant, ** Significant at 0.01 level of probability)

Among personal variables the correlation coefficient between organic farming experiences were 0.2745 the 'r' values were positive and significant at 0.01 level of significance. While the variable age ($r = -0.2030$) had negative and significant relationship at 0.05 level of significance and education ($r = -0.8153$) had negative and significant relationship at 0.01 level of significance. Only social participation had failed to establish any relationship with attitude. From the above discussion it can be concluded that level of organic farming experience were found significantly and positively correlated with level of attitude of organic farmers while age and education had negatively but significant relationship with attitude of organic farmers. It implies that higher level of education, long organic farming experience might have developed favourable attitude towards organic farming among them.

In case of economic variables the correlation coefficient values 0.2184 and 0.2339 for land holding and herd size were significant and positive at 0.05 level of significance. Hence, Annual

income ($r = 0.2959$) had significant and positive at 0.01 level of significance. While the variables viz., cropping intensity and irrigation facility had no significant relationship with attitude of organic farmers. The above discussion leads to conclude that land holding, herd size and annual income of organic farmers affected significantly and positively correlated with level of attitude of organic farmers. This might be due to large herd size possessed by the farmers. The animals are the source of organic manure and also subsidiary income might have given courage to take risk to adopt such a new concept of farming.

With respect to psychological variables, innovation proneness ($r = 0.2787$), rationality in decision making ($r = 0.2866$) and risk orientation ($r = 0.2677$) were found positively and significantly related with attitude of organic farmers at 0.01 level of probability. While economic motivation and marketing orientation did not establish any relationship with attitude of organic farmers, The above results lead to conclude that more innovation prone more rational in decision making, having more risk orientation affected positively and significantly in building favourable attitude towards organic farming among organic farmers.

Regarding relationship of communication variables, two variables viz., extension participation ($r = 0.2957$) and source of information ($r = 0.2436$) were positively and significantly correlated with attitude of organic farmers. The above results clearly indicated that information sources used and extension participation had significantly affected the level of attitude of organic farmers. It has been observed that organic farmers were having good contacts with NGOs and other organic farmers groups. They not only read farm literature but also subscribe magazines related to organic farming. This might have developed positive attitude among them towards organic farming.

CONCLUSION

From the research study it can be concluded that the practices viz., intercropping, crop rotation, weed management, water management, use of FYM, vermicompost, biofertilizer & oil cake and use of pheromone trap & cow dung/urine were found popular among farmers, while rest of the practices were not found popular among the farmers. It is quite clear that the efforts of popularizing such practices are less because there is no trained extension functionaries hence, it is highly required that government should organize training for extension functionaries on organic farming so that they can train the farmers accordingly in these aspects. Based on above

findings it is inferred that among all 16 variables 11 variables viz., age, education, organic farming experience, land holding, herd size, annual income, innovation proneness, rationality in decision making, risk orientation, sources of information and extension participation had played significant role in developing favorable attitude towards organic farming among organic farmers.

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