

PERCEPTION OF FARMERS TOWARDS ORGANIC FARMING

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ABSTRACT

The study was carried out in Gujarat state. Total 160 farmers practicing organic farming and registered under Gujarat Organic Products Certification Agency were selected randomly for the study. Ex-post facto research design was used. A standardized scale was developed and used for the measurement of perception towards organic farming. The study revealed that majority (89.37 per cent) of the farmers had high to very high level of perception towards organic farming. As for almost all the components like: perception about sustainable agriculture, perception about human health, perception about soil conservation, perception about marketing, perception about organic products certification process, perception about relative advantage, perception about environmental betterment, and perception about self-reliance in input, majority of farmers were found in high category and that is reflected in their overall perception towards organic farming. One-way analysis of variance was used to study the difference in mean percent score of indicators that determines perception towards organic farming. Comparing the different components individually with critical difference, perception about soil conservation, perception about human health and perception about sustainable agriculture were at par and were significantly superior to all other components. The last component in the ladder was perception about organic products certification process which was significantly inferior to all other components.

Keywords: organic farming, perception, one-way analysis of variance

INTRODUCTION

The Indian agriculture sector has undergone significant improvement during the past few decades. Since the introduction of “Green Revolution” technologies, India’s agriculture has transitioned from subsistence to commercial production. The Green Revolution has been the keystone of India’s agricultural achievement, transforming the country from the arena of food deficiency to self-sufficiency by employing high-yielding varieties and higher levels of inputs of fertilizers and pesticides (Roychowdhury *et al.*, 2013). The input-intensive “Green Revolution” has concealed significant externalities in recent decades that have a negative impact on natural resources, human health, and agriculture itself, despite its success (Gamit and Vinaya Kumar, 2022). Increasing land fragmentation, diminishing natural assets, high costs for external farm inputs and pesticide-related health issues have threatened the livelihoods of many farming families and led to a climate of despair in many rural areas.

In the present agricultural scenario, crop yield is declining day by day despite maximization of chemical inputs. The vicious cycle of chemical farming is now exposed in the increasing crop unsustainability, higher input requirement, poor soil quality as well as recurrent pest and disease infestation. The intensive use of agrochemicals such as fertilizers and pesticides/insecticides has led to the entry of harmful compounds into the food chain, death of natural enemies and deterioration of surrounding ecology (Chitale *et*

al., 2012) and decreased soil fertility, resulting in stagnation of agricultural productivity in recent years and environmental degradation (Narayanan 2005; Priya and Singh, 2022).

Hence, the adoption of organic farming as one of the strategies for sustainable agricultural growth is crucial in present era. The key objective of organic farming resides in the development of a self-sustainable farming system in harmony with nature which delivers ecologically and economically sustainable pure food with the enrichment of surrounding biodiversity and its entire components.

Gujarat is a promising state where agriculture has become a source of wealth and employment. However, the farmers’ conception towards organic farming in general is relatively not that much positive despite the government efforts to create awareness regarding organic farming practices and its benefits in terms of sustainable income and better health. Hence, the works of the researchers and policymakers should be brought into light in order to change the mindset of the farmers regarding misconceptions towards organic farming.

In this context, it is of quite significance to study how organic farming is perceived as among the farmers who have adopted it. The perception of farmers based on their experience in organic farming can help a lot to pave the way for the expansion and development of organic farming in the larger interest of the farming community. With this in view,

the study was conducted with the following objective.

OBJECTIVE

To know the perception of farmers towards organic farming

METHODOLOGY

The study was carried out in Gujarat state. Total 160 farmers practicing organic farming and registered under Gujarat Organic Products Certification Agency were selected randomly for the study. Ex-post facto research design was used. A standardized scale was developed and used for the measurement of perception towards organic farming and it was studied based on different eight indicators viz. perception about sustainable agriculture, perception about human health, perception about soil conservation, perception about marketing, perception about organic products certification process, perception about relative advantage, perception about environmental betterment/benefit and perception about self-reliance in inputs. The interview schedule was prepared in accordance with the objectives. The data were collected personally, tabulated and analyzed. Based on their score, the respondents were arbitrarily grouped in to five categories. One-way analysis of variance was used to study the difference in mean percent score of indicators that determines perception towards organic farming.

RESULTS AND DISCUSSION

Perception of farmers towards organic farming

This section contains the findings and discussion in respect of perception of farmers towards organic farming based on different indicators as well as their overall perception.

Different indicators that determine the perception of farmers towards organic farming

As discussed earlier in the research methodology, the perception of farmers towards organic farming was studied based on different eight indicators and the data in this respect are presented in Table 1.

Table 1: Distribution of farmers according to different indicators which determine the perception towards organic farming (n = 160)

Sr. No.	Indicators wise categories with score	Frequency	Per cent
A	Perception about sustainable agriculture		
1	Very Low (Up to 10.8)	00	00.00
2	Low (10.9 to 15.6)	01	00.63
3	Medium (15.7 to 20.4)	17	10.63
4	High (20.5 to 25.2)	93	58.12
5	Very High (Above 25.2)	49	30.62

Sr. No.	Indicators wise categories with score	Frequency	Per cent
B	Perception about human health		
1	Very low (Up to 07.2)	01	00.63
2	Low (07.3 to 10.4)	03	01.87
3	Medium (10.5 to 13.6)	20	12.50
4	High (13.7 to 16.8)	62	38.75
5	Very high (Above 16.8)	74	46.25
C	Perception about soil conservation		
1	Very low (Up to 09.00)	00	00.00
2	Low (10.00 to 13.00)	09	05.63
3	Medium (14.00 to 17.00)	17	10.63
4	High (18.00 to 21.00)	77	48.12
5	Very high (Above 21.00)	57	35.62
D	Perception about marketing		
1	Very low (Up to 09.00)	03	01.87
2	Low (10.00 to 13.00)	09	05.63
3	Medium (14.00 to 17.00)	61	38.12
4	High (18.00 to 21.00)	73	45.63
5	Very high (Above 21.00)	14	08.75
E	Perception about organic products certification process		
1	Very low (Up to 07.2)	03	01.87
2	Low (07.3 to 10.4)	07	04.38
3	Medium (10.5 to 13.6)	53	33.13
4	High (13.7 to 16.8)	82	51.25
5	Very high (Above 16.8)	15	09.37
F	Perception about relative advantage		
1	Very low (Up to 09.00)	01	00.63
2	Low (10.00 to 13.00)	03	01.87
3	Medium (14.00 to 17.00)	41	25.63
4	High (18.00 to 21.00)	93	58.12
5	Very high (Above 21.00)	22	13.75
G	Perception about environmental betterment/benefit		
1	Very low (Up to 10.8)	01	00.63
2	Low (10.9 to 15.6)	06	03.74
3	Medium (15.7 to 20.4)	45	28.12
4	High (20.5 to 25.2)	81	50.63
5	Very High (Above 25.2)	27	16.88
H	Perception about self-reliance in inputs		
1	Very low (Up to 10.8)	00	00.00
2	Low (10.9 to 15.6)	02	01.25
3	Medium (15.7 to 20.4)	57	35.62
4	High (20.5 to 25.2)	86	53.75
5	Very high (Above 25.2)	15	09.38

The data presented in Table 1 show that, majority (88.74 per cent) of the farmers had a high to a very high level of perception about sustainable agriculture.

The findings also indicate that very high and high level of perception about human health was found prominent among majority (85.00 per cent) of the farmers. It means the

respondents were of the strong belief that the organic food, as it is produced without the use of chemical fertilizers and pesticides, reduces health risks to human being. Likewise, organic farming also provides comparatively healthier and nontoxic environment to the farmers/workers at the farm.

Majority (83.74 per cent) of the farmer had a high to a very high level of perception about soil conservation. It means that farmers, through their experience in organic farming must have become convinced that the use of organic inputs such as organic manures, compost, cow dung, natural minerals, micro-biological fertilizers *etc.* are the means which can make soil healthy and boost up soil conservation.

Majority (83.75 per cent) of them had a high to medium level of perception about marketing. Respondent farmers perceived that organic farming can be a potential source of foreign exchange and organic farm produce would fetch more price than inorganic farm produce. Also, it becomes quite essential to keep constant touch with market to recognize suitable place for selling farm produce at high rate if they want to earn more per rupee invested.

Slightly more than half (51.25 per cent) of the farmers had a high level of perception about organic products certification process, followed by medium (33.13 per cent), while 09.37 per cent, 04.38 per cent and 01.87 per cent of them had very high, low and very low level of perception about organic products certification process, respectively.

The data concerning the perception of farmers about relative advantage depicted in Table 1 reveal that slightly less than three-fifth (58.12 per cent) of the farmer had a high level of perception about relative advantage, followed by medium (25.63 per cent) and very high (13.75 per cent) level of perception, while only 01.87 and 00.63 per cent of them were found with low and very low level of perception about relative advantage, respectively.

Majority (78.75 per cent) of the farmer had high to medium level of perception about environmental betterment/benefit. It means organic farming leads to human and animal welfare as it is the combination of tradition, innovation and science to benefit the quality of life and the environment.

Perception level of farmers about self-reliance in inputs was high to medium (89.37 per cent), which means majority of the farmers were of firm opinion that organic farming helped them to be self-reliant for inputs. With the animal husbandry as their subsidiary occupation, the farmers would have been able to procure major inputs from their farm/local eco system.

Overall perception of farmers towards organic farming

Perception index based on all these components was computed for every respondent; and on the basis of PI, farmers were arbitrarily categorized as shown in Table 2.

Table 2: Distribution of farmers according to their overall perception towards organic farming

(n = 160)

Sr. No.	Categories	Frequency	Per cent
1	Very low (Up to 25)	00	00.00
2	Low (26 to 45)	00	00.00
3	Medium (46 to 65)	17	10.63
4	High (66 to 85)	119	74.37
5	Very High (Above 85)	24	15.00

The data depicted in Table 2 reveal that majority (89.37 per cent) of the farmers had high to very high level of perception towards organic farming. As for almost all the components like: perception about sustainable agriculture, perception about human health, perception about soil conservation, perception about marketing, perception about organic products certification process, perception about relative advantage, perception about environmental betterment, and perception about self-reliance in input as discussed earlier, majority of farmers were found in high category and that is reflected in their overall perception towards organic farming.

The above finding is partially supported by the findings of Rao and Murthy (2001), Prajapati *et al.* (2018) and Harini (2021).

Difference in different indicators which determine the perception of farmers towards organic farming

It was also felt interesting to study the difference in different indicators which determine the perception of farmers towards organic farming in Gujarat, and for that one-way analysis of variance was applied to data related to mean per cent score of each indicator of perception towards organic farming. The data pertaining to this are presented in Table 3.

Among all the indicators of perception of farmers towards organic farming of Gujarat, perception about soil conservation had highest mean percentage score (81.32) followed by perception about human health, perception about sustainable agriculture, perception about relative advantage, perception about environmental betterment/benefit, perception about self-reliance in inputs, perception about marketing, and perception about organic products certification process with mean score of 80.81, 79.29, 74.85, 73.70, 71.12, 70.75, 68.84, respectively.

From the results, it can be said that different indicators of perception of farmers towards organic farming differed from one another; perception about soil conservation being at the top, while perception about organic products certification process at the bottom.

Table 3: Difference in different indicators which determine the perception of farmers towards organic farming (n = 160)

Sr. No.	Indicators	Mean Percentage Score
1	Perception about sustainable agriculture	79.29
2	Perception about human health	80.81
3	Perception about soil conservation	81.32
4	Perception about marketing	70.75
5	Perception about organic products certification process	68.84
6	Perception about relative advantage	74.85
7	Perception about environmental betterment/benefit	73.70
8	Perception about self-reliance in inputs	71.12
9	SE _{m±}	00.94
	CD (0.05)	02.60
	CV %	15.84

CONCLUSION

Majority of farmers were found with high to very high level of overall perception towards organic farming, as for all the eight indicators of perception towards organic farming, majority of them were observed in high categories. Comparing the different components individually with critical difference, perception about soil conservation, perception about human health and perception about sustainable agriculture were at par and were significantly superior to all other components. The last component in the ladder was perception about organic products certification process which was significantly inferior to all other components. This suggests that farmers need a better image of the organic products certification process, as well as more information or understanding about it, in order to enhance the adoption of organic farming.

CONFLICT OF INTEREST

All authors declare that they have no conflict of interest.

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